P.O. Box 85518
Lincoln, NE 68501-5518

CHANGE SERVICE REQUESTED

October 13, 2006
Volume 28 Number 41
www.processor.com

PROCESSOR
Products, News & Information Data Centers Can Trust. Since 1979

The Changing Face Of Hardware Acquisition

What's Driving Hardware Procurement In Today's Environment?

by David Garrett

• • •

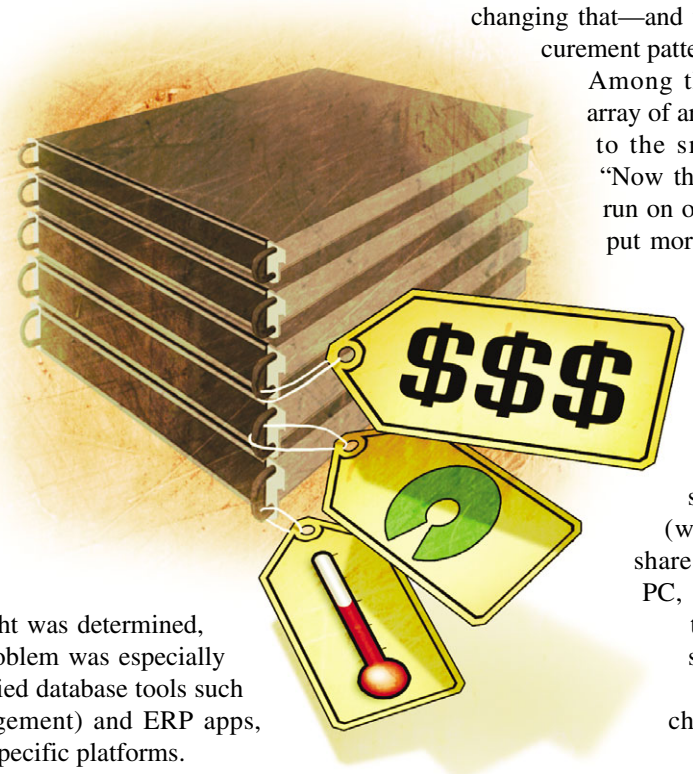
So much to buy, so little cash.

That all-too-common complaint is still the bane of data center owners, making procurement—and above all the procurement of new hardware—a shifting target. What's the right tool? What's the right price? Where do we direct the budget we have, and what do other data centers do?

Now more than ever it pays to know what's driving hardware acquisition and why, not to mention what's disrupting it.

Has Open Source Opened Procurement?

In times past, the hardware you bought was determined, by and large, by your software. The problem was especially true of database systems, including applied database tools such as CRM (customer relationship management) and ERP apps, which in their larger forms ran only on specific platforms.



But according to Tim Loring of Akibia, which helps clients in 20 countries run their data centers and offers a vendor-neutral, technology-agnostic procurement service, the rise of open source is changing that—and will keep changing hardware procurement patterns for months.

Among those patterns, of course, is the array of architectures that open source offers to the small and midsized data center. "Now that the Oracles and the SAPs also run on open source," says Loring, "it does put more choice in the hands of the user, so they can choose if they want a completely open-source architecture, a hybrid of open-source systems, or whatever they like."

Take MySQL (www.mysql.com), for instance, which is slowly eroding SQL Server's (www.microsoft.com/sql) market share and runs on x86, AMD, PowerPC, SPARC, and UltraSPARC architectures, to name just a few. It also supports clusters.

But it's not just the greater choice that open source affords that

Go to Page 10

What Are You Blocking & Why?

Know Your SME's Biggest Threats & How To Protect Against Them

by John Brandon

• • •

In the network security field, there are two potential threats: those that invade your network without provocation and those that are invited by employees. In IT, the traditional focus has been on the latter: blocking the rogue employee who uses company time for nefarious activity, such as downloading pornography, visiting hate crime sites, or installing BitTorrent clients that are obvious violations of company policy. Expensive filter appliances are updated almost daily as a way to block ever-more-deviant sites, but in many ways, this process is always one step behind the criminals.

In a recent "quick poll" by the IT networking forum Norex, more respondents said their IT focus is on blocking porn and hate crime sites than malware, BitTorrent, and hacking portals. It's true that malware often infects those who are visiting dubious download sites—those that distribute "free" programs to provide some minor benefit but come with a hidden malware client. Often, there's a more relaxed view on blocking "passive invasions" where malware can infect any user.

Security companies such as SurfControl, CP Secure, and Sana Security suggest that IT should be using a multifaceted approach to blocking and filtering content, one that doesn't just focus on pornography and illegal sites but is more policy-driven and focused more on blocking malware installation than blocking Web sites.

How Malware Infects IT

Malware is more prevalent than ever, and the methods that criminals use to propagate their wares are ever more industrious. Users will download a free video or music file, receive a seemingly innocent request to accept an instant message, or even just copy a photo from an Apple iPod at work.

Go to Page 10

Security companies suggest that IT should be using a multifaceted approach.

In This ISSUE

COVER FOCUS

Hardware Acquisition

We're approaching a period of tremendous transition, with new processors and new operating systems that will impact hardware acquisition.

The Changing Face Of Hardware Acquisition 1
Navigating The Hardware Store 9
The Vendor Dilemma.....11
Hardware Life Cycles Enter A New Era.....12

TECH & TRENDS

What Are You Blocking & Why? | 1

Security companies suggest that IT use a multifaceted approach to blocking and filtering content, one that is policy-driven and focused more on stopping malware than blocking Web sites.

Recycling Media | 28

After deciding whether to recycle or destroy your media, the next step is to choose a reputable media recycling company.

Group Policy Objects | 29

While Group Policy Objects make for streamlined, often seamless, data center managing operations, they sometimes complicate certain file management tasks.

What's New In RAID Controllers? | 30

As bus technologies mature, RAID controllers continue to meet the changes within the industry.

NEW PRODUCTS

AIS LDS KVM Console LCD Monitors.....16
D-Link xStack Storage iSCSI 3000 Series 17
PowerFile Active Archive Appliance 18
Emerson Liebert XDH 21
NetworkStreaming SA300 21

Product Releases | 16

■ **Akonix** introduced a new security appliance for monitoring Skype use. ■ **Apposite Technologies** launched Linktropy 4500 2.0, a WAN emulation appliance. ■ **AT&T** and **Arsenal Digital** announced a new online backup service available to small businesses. ■ **ATTO Technology** launched a series of SAS PCIe RAID adapters. ■ **Emerson Network Power** announced the Liebert Battery Monitoring Service, which is designed to maximize the availability and performance of battery systems. ■ **ExclamationSoft** says its WebWatchBot 5.0 software offers continuous monitoring of many aspects of site and server operation. ■ There are nine new **Secure Services** Gateway UTM appliances in three different product lines from Juniper. ■ **Network Instruments** increased the drive capacity of its GigaStor storage appliance to 12TB. ■ **PatchLink** announced PatchLink Update 6.3, designed for rapid patch management and maximum endpoint coverage.

EACH WEEK

Upcoming IT Events 3
MarketPlace News 3
MarketWatch.....4
Product Releases 16
Opinions 24, 25
What's Happening.....31
Processor.com 31

The Processor.com home page is updated each week with new articles and hardware news to help you keep current. **Visit www.processor.com today.**

Subscribe Today / Address Change Form

For address change, fill out form below with new information and mail or fax.

PLEASE PRINT

Phone: (_____)_____ Fax: (_____)_____

Contact Name: _____

Company Name: _____

Address: _____

City: _____ State: _____ Postal Code: _____

Country:_____

Email: _____ Web Address: _____

1. What is the size of your company (how many employees)?

☐ Less than 10 ☐ 200 - 499
☐ 10 - 99 ☐ 500 - 999
☐ 100 - 199 ☐ 1,000+

2. How often do you purchase computer hardware/software?

☐ Weekly ☐ Quarterly
☐ Bi-weekly ☐ Annually
☐ Monthly ☐ No Involvement

3. What is your annual computer hardware/ software purchasing budget?

☐ $0 - $9,999 ☐ $100,000 - $249,999
☐ $10,000 - $24,999 ☐ $250,000 - $499,999
☐ $25,000 - $49,999 ☐ $500,000 - $999,000
☐ $50,000 - $99,999 ☐ $1,000,000+

PROCESSOR

© Copyright 2006 Sandhills Publishing Company.
All rights reserved.

Subscriptions: (800) 819-9014
Subscriptions Local: (402) 479-2170
Subscriptions Fax: (402) 479-2123
Mail Form To:
P.O. Box 85518, Lincoln, NE 68501-5518
Overnight Delivery:
120 West Harvest Drive, Lincoln, NE 68521

www.processor.com

Advertisers Index

COMPANY	PAGE
360 TECHNOLOGIES	33
ABACUS SOLUTIONS LLC	35
ADAPTEC INC	13
ADAPTEC INC	15
ADAPTEC INC	19
ADAPTEC INC	20
ADAPTEC INC	28
ADVENTNET INC	12
ADVENTNET INC	16
AIS	6
ALTIRIS	12
ALTIRIS	14
AMERICAN PROIMAGE	7
AMERIVAULT	20
ARBOR SOLUTIONS	9
ARBOR SOLUTIONS	11
ARECA	11
ARISE COMPUTER INC	7
ASA COMPUTERS	8
ATLAS SALES AND RENTALS	26
AVTECH SOFTWARE INC	16
AVTECH SOFTWARE INC	23
AVTECH SOFTWARE INC	24
B L TRADING INC	34
BAYTECH	26
BSP INTERNATIONAL	12
BUTLER DISTRIBUTION	34
CANDELA TECHNOLOGIES	5
COMPUREX SYSTEMS	35
COMPUTER CONNECTION	35
COMPUVEST	32
CYBER SWITCHING	26
DATA RELIANCE CORPORATION	34
DATAMEDIA SOURCE	35
DIGITAL BROTHERS GROUP	34
DMD SYSTEMS RECOVERY	21
DRIVE SOLUTIONS INC	35
ELECTRO STANDARDS LABORATORIES	5
ELI SYSTEMS INC	34
ENHANCE TECHNOLOGY	15
EPANELPRO	19
EQUIPMENT MANAGEMENT INC	35
EVOLVING SOLUTIONS INC	33
EXCEL MERIDIAN DATA	9
GLOBAL DATAGUARD	29
GLOBAL PRINTER SERVICES	35
HERGO ERGONOMIC SUPPORT SYS	27
I T TRADING	35
I-TECH CO	5
INFORMATION SUPPORT CONCEPTS	27
INTERNATIONAL SYSTEMS MGT	35
ISTAR USA	30
KDS	35
L & L SYSTEMS	35
LINCO COMPUTER SALES & SERVICE	35
MEDIA MASTR MAGNETICS INC	35
MEDIA RECOVERY	34
MELLANOX TECHNOLOGIES INC	7
MICRO MEMORY BANK	34
MOBILE IT INC	9
NETMASS	5
NEXSAN TECHNOLOGIES	5
NLE	34
NORTHWEST PERFORMANCE SOFTWARE	29
PACE / BUTLER CORP	35
PACIFIC TRADING & RECYCLING	35
PEGASUS COMPUTER MARKETING	21
PEGASUS COMPUTER MARKETING	35
PLANVIEW INC	12
POWERFILE	11
POWERFILE	13
PROSOURCE DATA CENTER CLEANING	21
PULIZZI ENGINEERING INC	25
PYRAMID COMPUTERS USA	30
RACKMOUNT SOLUTIONS	7
RACKMOUNT SOLUTIONS	26
RACKMOUNT SOLUTIONS	27
RECORTEC	7
RECYCLE YOUR MEDIA	5
REGENT SALES INC	34
ROSE ELECTRONICS	5
ROSE ELECTRONICS	7
SENSATRONICS	18
SENSATRONICS	26
SENSORY NETWORKS INC	28
SERVER TECHNOLOGY	26
SERVERS DIRECT	36
SEWELL DIRECT	7
SEWELL DIRECT	24
SMS ASSEMBLY	35
STORAGECRAFT TECHNOLOGY	16
STORAGECRAFT TECHNOLOGY	17
TEST-UM/JDSU	14
TEST-UM/JDSU	26
TOTALLYRACKS	12
TRIPWIRE	12
TRIPWIRE	14
TST CORPORATION	15
VECMAR COMPUTER SOLUTIONS	34
VERARI SYSTEMS	7
VIBRANT TECHNOLOGIES INC	34
WESTERN TELEMATIC INC	25
WR CONSULTANT ASSOCIATES	34
ZEROWAIT	35

Upcoming IT Events

- OCTOBER -

ASCDI Fall
October 18-21
Toronto, Canada
www.ascdi.com

Chicago ITEC 2006
October 18-19
Chicago, Ill.
www.goitec.com

InfoSecurity
October 23-25
New York, N.Y.
www.infosecurityevent.com

International Security Conference East
October 24-25
New York, N.Y.
www.isceast.com

Data Center Decisions
October 25-26
Chicago, Ill.
www.datacenterdecisions.com

Kansas City ITEC 2006
October 25-26
Kansas City, Kan.
www.goitec.com

- NOVEMBER -

Atlanta ITEC 2006
November 1-2
Atlanta, Ga.
www.goitec.com

FS/TEC
November 5-8
Long Beach, Calif.
www.fstec.com

TDWI World Conference
November 5-10
Orlando, Fla.
www.tdwi.org

Business Rules Symposium Series
November 7-8
New York, N.Y.
www.brainstorm-group.com

Enterprise Architecture Conference Series
November 7-8
New York, N.Y.
www.brainstorm-group.com

Technology + Learning Conference
November 8-10
Dallas, Texas
www.nsba.org

SC2006
November 11-17
Tampa, Fla.
sc06.supercomputing.org

Philadelphia ITEC 2006
November 15-16
Philadelphia, Pa.
www.goitec.com

Advertising Sales: Susan Miller / Brant Washburn
Jim Hakel / Julie Lausterer / David Bartholomai
Rob Downey / Blake Johnston / Dan Brooks
Joy Caldwell

Editorial Staff: Ronald D. Kobler / Corey Russman
Michael Dempsey / Sheila Allen / Joy Martin
Rod Scher / Christopher Trumble / Calvin Clinchard
Katie Sommer / Michael Sweet / Katie Dolan
Raejean Brooks / Sally Curran / Nate Hoppe
Trista Kunce / Linné Ourada / Vince Cogley
Ashley Finter / Tara Simmons / Leah Houchin
Holly Zach / Barbara Ball / Marty Sems
Kylee Dickey / Josh Gulick / Andrew Leibman
Jennifer Johnson / Nathan Lake / Blaine Flamig

Art & Design: Lesa Call / Fred Schneider
Carrie Benes / Ginger Falldorf / Sonja Warner
Aaron Weston / Aaron Clark / Lori Garris
Jason Codr / Andria Cogley / Erin Rodriguez
Lindsay Anker

Web Staff: Dorene Krausnick / Laura Curry
Kristen Miller / Jessie Danekas

Subscriptions
(800) 819-9014
(402) 479-2170

Advertising
(800) 247-4880
(402) 479-2141
FAX: (402) 479-2120

Editorial Staff
131 W. Grand Drive • Lincoln, NE 68521
editor@processor.com
FAX: (402) 479-2104

MarketPlace NEWS



Vista To Require Activation

For the first time in Windows history, volume licensed customers of Windows Vista will be required to activate their copies. Under the new Microsoft Software Protection Platform, all owners of Windows Vista and Windows Longhorn Server must activate their licenses within 30 days of purchase. If the product isn't activated within 30 days, it will move into "reduced functionality mode." Microsoft also announced several new business activation options, including a Multiple Activation Key service for companies with fewer than 25 PCs and a Key Management Service option for companies with more than 25 PCs or five servers.

Charges Filed In HP Case

California Attorney General Bill Lockyer has filed felony charges against former HP Chairman Patricia Dunn, former HP Senior Counsel and Director of Ethics Kevin Hunsaker, and three private investigators who worked on the HP board room leak case. All four face felony charges of conspiracy to commit a crime; fraudulent use of wire, radio, or television communications; taking, copying, and using computer data; and using personal identifying information without authorization. The charges carry maximum prison sentences of three years and fines ranging from $10,000 to $25,000. According to Lockyer, both Dunn and Hunsaker knew investigators used false identities to obtain phone records.

California Bans Pretexting

California Governor Arnold Schwarzenegger signed into law a bill that bans telephone companies from making calling records available to anyone other than the original caller. The bill comes as a result of the ongoing case where investigators hired by HP allegedly used forms of pretexting, or pretending to be someone else to gain access to personal information, to attempt to find out who was leaking private information about the HP board of directors to the media. The California law, which applies to both landline and cellular phones, requires written consent from the original caller to release phone records. A Congressional bill banning pretexting on a national level has not yet been acted on.

ICANN To Become Independent

ICANN (the Internet Corporate for Assigned Names and Numbers) will remain under the control of the U.S. Department of Commerce for three more years, according to the latest agreement between the two groups. During that time ICANN, which oversees Internet addresses, will gain some autonomy in a move toward private-sector control in 2009. Under the new agreement, ICANN will not have its work dictated to it and will not have to file twice-yearly reports with the Commerce Department. The European Commission welcomes ICANN's movement toward independent control. The EC and several countries have pushed for ICANN to be managed by a global organization such as the United Nations.

Fujitsu Recalls Sony Batteries

Following in the footsteps of Apple, Dell, IBM, Toshiba, and Lenovo, electronics company Fujitsu has announced it too will recall Sony laptop batteries. Fujitsu is recalling 287,000, a small portion of the total 7.5 million Sony batteries being recalled. In August, Apple and Dell announced recalls of 5.9 million Sony batteries. Prior to Fujitsu's recent announcement, Sony estimated that all the recalls would end up costing the company between $170 million and $254 million, although a Sony spokesperson said Fujitsu's announcement will likely push those expected costs higher. The problematic Sony batteries have the potential to short-circuit, overheat, and cause fires in rare instances.

McAfee Buys Citadel

The acquisition of Citadel Security Software, which makes vulnerability management, policy compliance, and end point security solutions, will help McAfee expand security offerings. Citadel is the maker of the Hercules Enterprise Vulnerability Management Suite. The addition of the product to the McAfee lineup will help expand the company's risk and vulnerability strategies. In recent years, McAfee has added network intrusion detection, network- and host-based intrusion prevention, and vulnerability and risk management through other company acquisitions. According to Kevin Weiss, president of McAfee, in a statement, "With the addition of Citadel, we can offer our customers the major components of vulnerability assessment, policy compliance enforcement, and remediation, building on our suite of existing products."

The EU Case Against Intel

It appears that the European Commission may be drawing nearer to pursuing antitrust charges against chipmaker Intel. Officials have presented their case to an internal panel. The EU began its investigation into Intel five years ago, with surprise visits to Intel offices in Europe last year leading to the confiscation of documents. According to some consumer groups, Intel tactics have led to limited choices for consumers. Support of the draft case from the panel could lead to European competition commissioner Neelie Kroes issuing a statement of objections to Intel.

Apple Stock Options Issues

Former Apple CFO Fred Anderson resigned from the company's board of directors last week. The resignation follows an investigation into stock option grants between 1997 and 2002. The investigation found that 15 times during that time period option grants were backdated, which means the grant dates preceded their approval. 6% of overall grant dates made during that period were affected by the irregularities. According to an Apple spokesperson, there was no misconduct found by any of the company's current management team. However, Apple CEO Steve Jobs said he was aware that some employee stock options had been backdated. Jobs apologized last week.

Microsoft Appeals Fine From EU

Appealing to the second-highest court in the European Union, the Court of First Instance in Luxembourg, Microsoft appealed the fine of $356.4 million the European Commission imposed on the software giant. This fine is from July, when the Commission brought the penalty against Microsoft for not complying with an antitrust ruling dating back to 2004. The Commission imposed the fine because it believes the software company has been delaying its efforts to comply, while Microsoft claims it has been putting forth effort in complying with the 2004 ruling. Microsoft also appealed the Commission's record-setting fine of $632.5 million that dates back to the original antitrust ruling in March 2004.

Vista Ship Date Debate Continues

Research firm Gartner and investment bank Goldman Sachs agree that Microsoft doesn't have a technical reason to delay Vista's release. A Goldman Sachs analyst, Rick Sherlund, wrote a note to clients saying it looks like Microsoft will release its final beta version on time, suggesting it will ultimately meet its Vista release deadline. On the other hand, Gartner analysts say it may be in Microsoft's best interests to delay Vista's release until Easter. It cites issues relating to the market, politics, and the industry as possible hurdles to Microsoft releasing Vista on time. Specifically, Gartner says the antitrust lawsuit with the European Commission is bogging down the software giant.

Vista Release Candidate 2 Launched

Microsoft shipped out its Windows Vista RC2 (Release Candidate 2), the final stage before the Vista OSes release to manufacturing, to members of TechNet, TechBeta, MSDN, Customer Preview Program, and Technology Adoption Program. RC1 (Release Candidate 1) rolled out in September, and at the time, Microsoft said it would be the only one. However, as the software giant made changes to Vista, such as new application compatibilities and improvements in performance, it decided to release another candidate for additional feedback. After numerous delays, Microsoft is currently on track to release the OS to business customers next month and to consumers in January.

WATCH THE STOCKS

This information provides a quick glimpse of current and historical stock prices and trends for 16 major companies in the technology market.

Company	Symbol	Year Ago	October 2 $	October 9 $	% change from previous week
Avaya	AV	$10.97	$11.43	$12.05	▲ 5.42%
BEA Systems	BEAS	$8.68	$14.90	$15.20	▲ 2.01%
Computer Associates	CA	$27.13	$23.70	$23.80	▲ 0.42%
Cisco Systems	CSCO	$17.50	$22.98	$24.31	▲ 5.79%
Dell	DELL	$32.59	$23.04	$23.56	▲ 2.26%
Electronic Data Systems	EDS	$22.45	$24.50	$24.27	▼ 0.94%
Google	GOOG	$310.71	$401.44	$429	▲ 6.87%
HP	HPQ	$27.45	$37.66	$38	▲ 0.9%
IBM	IBM	$79.80	$81.87	$84	▲ 2.6%
Intel	INTC	$24.07	$20.44	$20.62	▲ 0.88%
McAfee	MFE	$31.09	$24.46	$25.54	▲ 4.42%
Microsoft	MSFT	$24.67	$27.36	$27.72	▲ 1.32%
Oracle	ORCL	$12.17	$17.66	$18.55	▲ 5.04%
Red Hat Software	RHAT	$20.48	$20.59	$21.51	▲ 4.47%
Sun Microsystems	SUNW	$4.21	$5	$4.97	▼ 0.6%
Symantec	SYMC	$22.59	$20.72	$20.40	▼ 1.54%

NOTE: This information is meant for reference only and should not be used as a basis for buy/sell decisions.

The Rise Of Voice Over IP

Passing Voice Over The Internet Is Getting Into The Mainstream

by Paul Ferrill

• • •

VOICE COMMUNICATIONS is without a doubt an essential part of just about every business. For many the telephone is the most essential tool. Without it they make no sales calls, take no orders, and provide no customer service. When a new technology comes along, such as Voice over IP, aka VoIP, it takes a while for the idea to catch on.

As more businesses see the potential cost savings that VoIP systems make possible, the idea gets even more attractive. Some of the biggest savings come when your company has multiple locations, and you route all voice traffic between offices over your VoIP system. Then things start to get really interesting.

Hardware & Software

One of the first questions you might ask would be what hardware and software will I need to implement a VoIP system? The answer depends on what you want to do. With the convergence of data, voice, and video, the possibilities are pretty broad. The key to making a VoIP solution work is all about QoS. If the phone call doesn't sound as clear as a regular analog phone line, you'll probably get push back from the users.

At the lowest end you can start with a simple IP phone that has a built-in adapter. These types of phones connect directly to your network as opposed to a regular phone outlet.

On the software side there are basically two options. You can go with a traditional vendor and its proprietary software, such as Cisco or Avaya, or you could go with an open-source solution such as Asterisk (www.asterisk.org). Asterisk is a complete PBX (private branch exchange) in software running on top of Linux or Mac OS X. Asterisk supports most of the telephony standards including SIP (Session Initiation Protocol) and H.323. With Asterisk you can build it yourself or turn to a company such as Four Loop Technologies for a turnkey solution.

Standards compliance is important if you want to interoperate with other systems. SIP is an IETF standard for creating, modifying, and terminating sessions with one or more participants. It is widely used as the signaling protocol for most VoIP systems. H.323 is a similar standard from the ITU (International Telecommunication Union) based in Geneva, Switzerland. Many European systems use this standard in lieu of SIP.

Communicating between different systems requires a solution that can translate between the different standards. Asterisk supports both SIP and H.323, so you could initiate a call on a SIP phone and connect with an H.323 phone on the other end. Most of the major VoIP vendors provide support for both protocols in their products.

Avaya

Companies with distributed offices represent one of the biggest potential savings areas for a VoIP implementation. Avaya has several new products that directly address this situation. The Avaya one-X Quick Edition is a SIP-based solution targeted at small businesses and branch offices with fewer than 20 users. Embedding the functionality of an IP PBX into the individual phone eliminates the need for a central server. All you need to set up communications is a PSTN gateway and basic phones.

SNAPSHOT

Avaya

Avaya one-X Quick Edition: less than $1,000 for two basic phones plus a PSTN gateway
Avaya VPNremote solution: $339 for individual software and license

Delivers a number of new products specifically targeted at the remote office and small office market providing all the hardware and software needed to implement a VoIP solution; VPNremote solution adds VoIP functionality to a traditional VPN solution to extend both the corporate network and voice communications to any location

www.Processor.com/Avaya

The Avaya VPNremote for IP Phones is a solution targeted at the teleworker that combines VoIP with VPN functionality into a single device. With the Avaya VPNremote solution you get the same phone experience and network connectivity you'd expect in the office from virtually anywhere. The Avaya VPNremote solution also supports VPN environments from Cisco Systems and Juniper Networks.

Cisco

It's just about impossible to talk about any product that uses IP without mentioning Cisco. Cisco has been delivering voice solutions since before the term VoIP was even mentioned. Cisco Unified Communications represents a wide range of products and solutions that address the needs of delivering voice, video, and IP communications over the same network.

One of the key advantages to a Cisco solution is the breadth of offerings that the company provides. Many organizations already have some type of Cisco equipment in the enterprise networking infrastructure. Adding voice capability in many cases is nothing more than a software upgrade. Having a single vendor providing all your voice and data hardware has both good points and bad.

Cisco has five basic technology components that make up the unified communications system. These are: IP Telephony (call processing, telephones, and endpoint); Unified Communications applications (unified communications clients, messaging, and conferencing solutions); contact center applications (a complete line of products for call center support); communications infrastructure (traditional routers and switches); and management tools (unified operations manager and service monitor).



SNAPSHOT

Cisco

Has a whole host of products under its Unified Communications umbrella; can buy everything from individual handsets to videoconferencing equipment to management software from the same vendor

www.Processor.com/Cisco11

Cisco's Unified CallManager and Unified CallManager Express products utilize existing Cisco networking products along with Cisco Unified IP phones to deliver enterprise-ready voice solutions. The CallManager Express product offers a low-cost solution suitable for the small business or a branch office.

Cisco's high-end products provide the hardware and software to support the largest call center. Management tools are a key part of all Cisco products, and that includes its Unified Communications offerings. The Unified Operations Manager and Unified Service Monitor tools make it possible to keep high-volume, mission-critical communication centers up and running with a minimal amount of staffing.

Edgewater Networks

The EdgeMarc 4500 series converged networking router provides a host of interconnection options to implement a VoIP solution. Interface options include up to four T1 WAN connections or one Ethernet WAN, a 4-port managed VLAN switch, optional 802.11 wireless access point, and integrated analog phone and line ports.

Flexibility is key to the EdgeMarc 4500 with the ability to function as a low-cost WAN router all the way up to a SIP trunking and enterprise video over IP platform. Another part of flexibility is the ability to reroute calls locally or over the public switched telephone network in case of a WAN link failure.

The EdgeConnect 800PoE managed power over Ethernet switch is a perfect companion to the EdgeMarc device. It provides plug and dial capability to just plug in an IP phone and have it work. It also implements a variety of QoS and VLAN techniques to ensure that voice gets first place in most every case. PoE eliminates the need for additional power supplies and AC wiring with IP phones.



SNAPSHOT

Edgewater Networks

EdgeMarc 4500: starts at less than $1,000
EdgeConnect 800PoE: starts at less than $500

Deliver a versatile hardware solution that can meet the needs of most small to medium-sized enterprises

www.Processor.com/EMark4500
www.Processor.com/EConnect800

Four Loop Technologies

In most traditional business telephony installations you will find some type of PBX or public branch exchange. Four Loop Technologies has taken the approach of replacing the traditional analog hardware PBX with a software digital one. Switchvox is a complete business phone system in software supporting unlimited extensions and voicemail.

The hardware part of the Switchvox system is essentially a Linux server with the appropriate hardware cards to interface to any existing telephony equipment. You can purchase a T1/E1 interface directly from Four Loop Technologies that will connect your Switchvox server to a traditional PRI or other T1 or E1 service.

SNAPSHOT

Four Loop Technologies

Switchvox SOHO system: $995
Switchvox SMB solution, including server: $2,495
Wildcard TE110P T1/E1 interface card: $664

Built on the open-source Asterisk software PBX and delivers a wealth of capability for a low-end price; expandable to meet the needs of most medium-sized businesses

www.Processor.com/Switchvox5
www.Processor.com/Switchvox6
www.Processor.com/Switchvox12

Telephone handsets can be either traditional analog devices or SIP digital phones. Analog handset connections to the Switchvox server require an ATA (analog telephone adapter). Each analog handset can have a corresponding ATA, or you can use a channel bank to use existing phone wiring.

Switchvox supports a number of advanced features such as call routing to enable you to receive calls anywhere, voicemail and email integration where your voicemails get delivered to your email inbox, and the ability to create interactive voice response systems using a graphical editor.

Buying Tips

- Make a plan that details all your communication needs, including data, voice, and video.
- If your company provides telephone support or customer service, you may want to look at some of the automated interactive voice response options.
- Build a list of requirements from your communications plan.
- Evaluate multiple vendors against your list of requirements.
- Select the system that best meets your needs and your budget.

To see *Processor* Showcase advertisements for products in this category, look online at www.Processor.com and find the VoIP Phone System ads under Communications/Telephony.

DATA CENTER SERVICES

OCTOBER 13, 2006

Get Cash For Your Data Tapes

Recycling Your Media Has Never Been So Safe, Sound & Simple

MOST ENTERPRISE DATA CENTERS are apprehensive about recycling data tapes due to security issues. Recycle Your Media has earned a reputation for being one of the largest and most respected full-service data tape recycling companies worldwide.

RecycleYourMedia.com is the most viable solution for your end-of-life data tapes. Recycling your media is environmentally sound and economically sensible given that it can recoup IT costs.

When recycling your data tapes, you need to be assured that the data will be destroyed and rendered unreadable. We practice the most secure methods, complying with governmental privacy and storage laws. We are highly experienced in data eradication and will offer data destruction certificates and volume serial reports to ensure your sensitive data is irretrievable.

Matthew Bernard, IT network manager at John Wiley & Sons, says, "Although hesitant to release my used data tapes, I found Recycle Your Media's data tape recycling service to be secure, professional, and more than I expected."

Recycle Your Media works with Fortune 500 companies, banks, government agencies, law firms, and hospitals, making us a reliable source for all your data tape recycling needs.

Why pay for tape shredding? Recycle Your Media can pay you to recycle your data tapes. Recycling data tapes is simple: Give us a call and we take care of the rest.

Think Green: Cash For Data Tapes



Data tapes we recycle: SDLT, 9940, 3590, LTO, AME AIT, and many others.

Recycle Your Media

We buy all types of tapes and recycle them using secure and environmentally sound methods

(877) 798-2737

www.Processor.com/Recycle

RecycleYourMedia SECURE END OF LIFE DATA SOLUTIONS

STORAGE

OCTOBER 13, 2006

Maximize Your Storage Investment

Nexsan SATABeast Sets New Standards For Performance & Efficiency



THE SATABEAST extreme density storage array from Nexsan Technologies delivers the industry's best performance and cost-effectiveness in a scalable disk solution. It's the first high-performance, high-capacity RAID storage system to utilize AutoMAID technology, which lets the SATABeast place disk drives in an idle state to conserve energy yet still provide near-instantaneous access to data—the SATABeast lets you access data up to 500 times faster than tape libraries and 20 times faster than other MAID systems.

The SATABeast can scale up to 305TB in a single rack (up to 42 SATA drives in a 4U chassis). It includes single or dual-redundant RAID controllers with FC and iSCSI connectivity, up to 2GB cache per controller, two redundant power supplies, and support for multiple RAID sets and volumes per set.

Other features include:

- The latest high-capacity SATA drives
- OS-independent architecture
- More than 700MBps throughput
- Redundant, hot-swappable components
- RAID levels 0, 1, 1+0, 4, 5, and 6

The SATABeast is ideal for:

Primary storage. Fast wire-speed read/write throughput and high IOPS performance—perfect for data-intensive apps.

D2D backup. Provides the speed, fault tolerance, and availability to deliver superior disk-based backup with a smaller footprint and less cost than tape libraries.

Secondary storage. Enterprise-class features and performance enable large file repositories to be stored on a single system. SATABeast requires no drivers and easily integrates into existing infrastructures.

Online archive. The unmatched capacity of the SATABeast easily handles enormous volumes of files. With its energy-saving AutoMAID technology, SATABeast enables massive archives to be cost-effectively stored and instantly accessed.

Nexsan SATABeast

The industry's most complete and cost-effective high-capacity storage system, with up to 305TB in a single rack

(866) 463-9726

www.Processor.com/Nexsan

nexsan TECHNOLOGIES

Storage

www.Processor.com/NetMass

OCTOBER 13, 2006

Server Backup Made Easy. Next-generation online backup and recovery service for Windows, Unix, Linux, Mac, Novell and AS400 environments. Live Exchange and SQL Server backup. Continuous Data Protection of file systems and Exchange at the brick level. Seamless multi-site backup of disperse data with centralized management, monitoring and reporting. Agentless technology for instant deployment. AES encryption in flight and at rest. LAN-speed recovery. Bare-metal restore. Tier-1 data centers. Free 30-day trial now. White papers and case studies on our website.

"It was incredibly fast – an entire restore took all of five minutes."
Robert Walston, IT Manager, VAALCO Energy

NETMASS The Safe Data Company

112 E. Louisiana, Suite C
McKinney, TX 75069
Phone: (800) 731-2737

Network & Systems Mgmt.

www.Processor.com/Candela1

AUGUST 4, 2006



LANforge ICE WAN Emulator

- Emulates networks, including DSL, T1, DS3, OC3, and Satellite
- Supports 0 to 1 Gbps bandwidth limitation, latency and jitter, packet drops, duplicates, and reorders
- Excellent for testing any application that runs over networks, including VoIP

Candela TECHNOLOGIES

2614 Aldergrove Rd.
Ferndale, WA 98248
Phone: (360) 380-1281
Email: sales@candelatech.com

Specialty Switch

www.Processor.com/ESL25

OCTOBER 6, 2006



Keylock Video Conference Room Secure Switching System

System consists of Display Indicator plus Fiber Optic, Ethernet, Telco, and ISDN Switches. In Secure Mode, (Key in OFF-Line position) all conference room equipment is completely isolated. Install with listed modules or customize with the "The Switch Experts" – Electro Standards.

Electro Standards Laboratories
ADVANCED SYSTEMS DESIGN & SERVICES

36 Western Industrial Dr.
Cranston, RI 02921
Phone: (401) 943-1164
Fax: (401) 946-5790

KVM & Console Access

www.Processor.com/i-Tech75

APRIL 7, 2006

Rackmount LCD Drawer w/KVM Over IP

$1900

New Product!



i-Tech SuperStore for Rackmount LCD Console Drawer

- 15", 17", 19" & 20" is also available
- Optional with 8/16 ports KVM
- New integrated with Remote Access via CAT5 and via IP
- New SUN Solaris Rackmount Keyboard

Free Grd Shipping for all Rackmount LCD KVM Drawers!

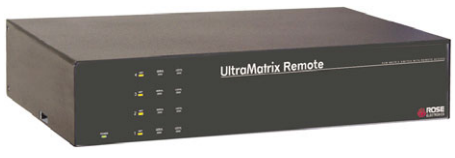
i-TECH COMPANY RACKMOUNT SOLUTION

30081 Ahern Ave
Union City, CA 94587
Phone: (888) 483-2418
Fax: (510) 372-2736

KVM & Console Access

www.Processor.com/Rose3

MAY 6, 2005



UltraMatrix™ Remote Server Management

- Connects 1,000 computers to multiple user station over IP
- Secure encrypted operation with computer access control
- High-quality video up to 1,280 x 1,024.
- Advanced visual interface (AVI). Easy to expand.
- No need to power down servers to install
- Free lifetime upgrade of firmware. Call for other models

ROSE ELECTRONICS

10707 Stancliff Road
Houston, TX 77099
Phone: (800) 333-9343
Fax: (281) 933-0044

KVM & Console Access

www.Processor.com/Rose2

MAY 6, 2005



UltraConsole™

- Connects up to 1,000 computers to a KVM station
- Compatible wtih Windows, Linux, Solaris & other OSes
- Connects to PS/2, Sun, USB, or serial devices
- Security features prevent unauthorized access
- Full emulation of keyboard and mouse functions for automatic, simultaneous booting. Easy to expand.

ROSE ELECTRONICS

10707 Stancliff Road
Houston, TX 77099
Phone: (800) 333-9343
Fax: (281) 933-0044

AIS INDUSTRIAL INNOVATIONS

Introducing AIS Cost Effective
1U RackMount KVM Console LCD Monitors

The AIS 1U RackMount KVM Console LCD Monitors come in 15", 17" and 19" sizes and feature an optional 8-port console switch; the single unit comes with 8 ports, an LCD flat monitor, keyboard, and touchpad, all integrated in a slide-out drawer. The 1U RackMount KVM Console LCD Monitors are designed for and fit perfectly into data centers, ASPs, ISPs, telecommunications, and testing rooms.



Starting at $999
LDS210D

Benefits and Advantages

- Industrial grade-A LCD TFT active-matrix color panel .
- On-Screen Display allows for easy adjustment of color, brightness, contrast, position, and shape of the display .
- Front panel controls for quick adjustments .
- Standard D-sub 15-pin VGA input connector.
- Space saving design - ultra-low 1U (1.75") flip-up display enclosure .
- Unique mechanical design to maximize rack mountable space .
- Comes with sliding rail and mounting kit for easy integration into any 19" cabinet.
- EMI shielding around the monitor housing to minimize interference.
- Integrated 88-key keyboard and touch pad.
- Integrated17-key numerical key pad.
- Keyboard and mouse that meets military standard for shock and vibration.
- Built with smart cable management design
- Adjustable hinges for display.
- Install quickly and easily with plug and play system configuration .
- Supports AT/XT, PS/2, UNIX, Sun, and Macintosh computers.








Model	15 LDS210D	15 LDS210D-8P	17 LDS310D	17 LDS310D-8P	19 LDS410D	19 LDS410D-8P
Size of panel	15"	15"	17"	17"	17"	17"
KVM	1 port	8 ports	1 port	8 ports	1 port	8 ports
Display Area (mm)	304.1 (H) x 228.1 (V) (15.0-inch diagonal)	304.1 (H) x 228.1 (V) (15.0-inch diagonal)	337.92 (H) x 228.1 (V) (17.0-inch diagonal)	337.92 (H) x 228.1 (V) (17.0-inch diagonal)	376.3 (H) x 301.1 (V) (19.0-inch diagonal)	376.3 (H) x 301.1 (V) (19.0-inch diagonal)
Pixel Pitch	0.297 (H) x 0.297 (V)	0.297 (H) x 0.297 (V)	0.264 (H) x 0.264 (V)	0.264 (H) x 0.264 (V)	0.294 (H) x 0.294 (V)	0.294 (H) x 0.294 (V)
Number of Pixels	1024 (H) X768 (V)	1024 (H) X768 (V)	1280 (H) X1024 (V)	1280 (H) X1024 (V)	1280 (H) X1024 (V)	1280 (H) X1024 (V)
Contrast Ratio	500:1	500:1	400:1	400:1	600:1	600:1
Display Color	16.2M(6bits+FRC)	16.2M(6bits+FRC)	16.7M(8bits/colors)	16.7M(8bits/colors)	16.7M(8bits/colors)	16.7M(8bits/colors)
Brightness (cd/m²)	250 (Typ.)	250 (Typ.)	280 (Typ.)	280 (Typ.)	250 (Typ.)	250 (Typ.)
Input Signal	RGB Analog	RGB Analog	RGB Analog	RGB Analog	4 replaceable CCFLs edge-light(top/Bottom)	4 replaceable CCFLs edge-light(top/Bottom)
Viewing Angle	- 65˚~ 65˚,- 55˚~ 65˚	- 65˚~ 65˚,- 55˚~ 65˚	-70˚~ 70˚,- 60˚~ 60˚	- 70˚~ 70˚,- 60˚~ 60˚	- 85˚~ 85˚,- 85˚~ 85˚	- 85˚~ 85˚,- 85˚~ 85˚
I/O	Power: 12DV adapter	Power: 12DV adapter	Power: 12DV adapter	Power: 12DV adapter	Power: 12DV adapter	Power: 12DV adapter
	Keyboard: PS/2	Keyboard: PS/2	Keyboard: PS/2	Keyboard: PS/2	Keyboard: PS/2	Keyboard: PS/2
	Mouse: PS/2	Mouse: PS/2	Mouse: PS/2	Mouse: PS/2	Mouse: PS/2	Mouse: PS/2
	VGA: 15-pin D-Sub	VGA: 15-pin D-Sub	VGA: 15-pin D-Sub	VGA: 15-pin D-Sub	VGA: 15-pin D-Sub	VGA: 15-pin D-Sub
Keyboard and Key pad	88-key keyboard and integrated Touch Pad	88-key keyboard and integrated Touch Pad	88-key keyboard and integrated Touch Pad	88-key keyboard and integrated Touch Pad	88-key keyboard and integrated Touch Pad	88-key keyboard and integrated Touch Pad
	17-key numerical key pad	17-key numerical key pad	17-key numerical key pad	17-key numerical key pad	17-key numerical key pad	17-key numerical key pad
Power Consumption	33 Watts	33 Watts	38 Watts	38 Watts	44 Watts	44 Watts
Power Supply	AC 100-240V Universal	AC 100-240V Universal	AC 100-240V Universal	AC 100-240V Universal	AC 100-240V Universal	AC 100-240V Universal
Hot Key Control	OSD Hot Key	OSD Hot Key	OSD Hot Key	OSD Hot Key	OSD Hot Key	OSD Hot Key
Temperature	0℃~50℃ in operating;	0℃~50℃in operating;	0℃~50℃ in operating;	0℃~50℃ in operating;	0℃~50℃ in operating;	0℃~50℃ in operating;
	-20℃~60℃ in storage	-20℃~60℃ in storage	-20℃~60℃ in storage	-20℃~60℃ in storage	-20℃~60℃ in storage	-20℃~60℃ in storage
Humidity	10~85% in operating; 10-90% in storage	10~85% in operating; 10-90% in storage	10~85% in operating; 10-90% in storage	10~85% in operating; 10-90% in storage	10~85% in operating; 10-90% in storage	10~85% in operating; 10-90% in storage
Size	515mm (D) x484mm (W) x44mm (H)	515mm (D) x484mm (W) x44mm (H)	515mm (D) x484mm (W) x44mm (H)	515mm (D) x484mm (W) x44mm (H)	515mm (D) x484mm (W) x44mm (H)	515mm (D) x484mm (W) x44mm (H)

ASI 1-(800) 200-0274

AVNET® 1-(800) 332-8638

D&H 1-(800) 340-1001

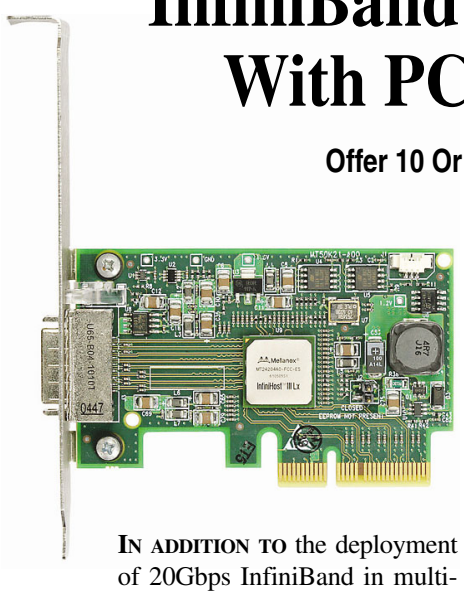
1-888-485-6688
http://www.aispro.com

COMPONENTS

AUGUST 11, 2006

InfiniHost III Lx Single-Port InfiniBand HCA Cards With PCI Express

Offer 10 Or 20Gbps Ports



IN ADDITION TO the deployment of 20Gbps InfiniBand in multi-core server platforms, blade server platforms are driving this connectivity performance into mainstream data center and high-performance computing environments. The industry is complementing these computing platforms with a range of 20Gbps InfiniBand infrastructure solutions. The growing ecosystem of InfiniBand 20Gbps technology-based suppliers is bringing a new generation of cluster and grid deployments where the bar for application performance and resource deployment flexibility is raised to unprecedented levels.

InfiniHost III Lx single-port 4X InfiniBand HCA cards connect to the host system through a PCI Express interface. SDR InfiniHost III Lx cards support 10Gbps InfiniBand connections while the DDR version supports 20Gbps connections. InfiniHost III Lx HCA cards deliver the most cost effective 10 or 20Gbps solution available and feature RDMA (remote direct memory access), hardware transport, and advanced per queue pair QoS services.

- 10Gbps (MHES14 and MHES18) or 20Gbps (MHGS18) 4X InfiniBand Port
- Integrated Serializer/Deserializer
- InfiniRISC embedded RISC processors
- PCI Express revision 1.0a compatible
- PCI Express x4 (10+10Gbps Full Duplex) interface (MHES14)
- PCI Express x8 (20+20Gbps Full Duplex) interface (MHES18, MHGS18) IBTA version 1.2 Compatible
- Copper InfiniBand connectors (MicroGigaCN) with media detect circuit for optional fiber media adapter software support
- Linux management and applications package available

InfiniHost III Lx

Single-port 4X InfiniBand HCA cards that connect through a PCI Express interface

(408) 970-3400

www.Processor.com/InfiniHostLx

Mellanox TECHNOLOGIES

SERVER

SEPTEMBER 29, 2006

Power-Efficient Blade

BladeRack 2 Provides Reliable & Scalable Density, Performance & Capacity

VERARI SYSTEMS' BLADERACK 2 is the most power-efficient blade server solution available in the HPC market today. We've built the BladeRack 2 with efficiency and expandability in mind. It can support the fastest, most powerful CPUs on the market, and its simple, elegant design ensures it will easily withstand your enterprise's future computing requirements.



The BladeRack 2 adds features that build on Verari's industry-leading patented Vertical Cooling Technology. This allows Verari Systems to employ the fastest single- and dual-core processors while utilizing an ultra-efficient power solution that will drastically reduce your organization's energy expenditure. In addition, the BladeRack 2 has increased thermal capacity, and you can easily adjust airflow within the cabinet.

The BladeRack 2 architecture allows for separate management and data network connectivity and comes standard with Dual Gigabit Ethernet, allowing for optional redundant system controllers, optional redundant Layer 2 Gigabit Ethernet switches, and optional redundant power supply units.

Every BladeRack 2 includes Verari Command Center cluster management software, which allows for integrated management and monitoring of one or many BladeRacks and includes many features not found in other packages.

Features:

- Capacity of up to 66 blades
- AC and DC options
- Can support the fastest, most powerful CPUs
- Accepts native power from the power grid, giving it 98% power efficiency at the rack level
- Optional redundancy features
- Patented Vertical Cooling Technology
- Ultra high-efficiency power system

Verari BladeRack 2

An innovative blade server design built with efficiency and expandability in mind

(888) 942-3800

www.Processor.com/BladeRack2

Verari systems

KVM & Console Access

www.Processor.com/Rackmount19

SEPTEMBER 1, 2006

$1899.95



ACME Portable Rack-Mountable KVM Switch

- 16-port KVM Screen/Keyboard/Touch Pad
- Built-in Side Railing for Instant Installation
- Meets EIA-310C and IEC-3 Specifications
- Tempered Glass Protected 19-inch Display
- Custom Colors Available
- 19-inch TFT 1280 x 1024

SEWELL SEWELLDIRECT.COM

1055 S. 1675 W.
Orem, UT 84058
(800) 709-1345

KVM & Console Access

www.Processor.com/Arise3

JULY 14, 2006



LKM-115/117

- 1U/2U rack mount LCD/Keyboard/Trackball
- 15" or 17" TFT Color LCD
- Trackball or Touchpad
- 6U/8U Panel Mount Available
- Optional KVM Switch Functions

ARISE

453 Ravendale Drive
Mountain View, CA 94043
Phone: (650) 428-0868
Phone: (781) 937-9888

KVM & Console Access

www.Processor.com/Rose

NOVEMBER 25, 2005



Rack Mounted KVM Drawer - RackView™

- 15", 17", or 19" LCD Panels
- Built-in single or multiple user KVM switch options
- Supports AT/XT, PS/2 and Unix computers
- Front Panel conceals unit when it is not in use
- Keyboard available in international variations
- LCD flat panel and kybrd/trackball can be sold separately

ROSE ELECTRONICS

10707 Stancliff Road
Houston, TX 77099
Phone: (800) 333-9343
Fax: (281) 933-0044

KVM & Console Access

www.Processor.com/RackmountSolutions

DECEMBER 9, 2005



Rackmount TFT / LCD Drawer
Superb Quality • Unparalleled Versatility
More choices than you ever dreamed of!

- 13", 15", 17", 19"
- Touch pad, track ball, real mouse
- With or without 4, 8 or 16 port KVM
- 1U or 2U for independent monitor/keyboard use

RACKMOUNT SOLUTIONS, LTD
where customer service matters

915 S. Jupiter Road
Garland, TX 75042
Phone: (866) 207-6631
Fax: (972) 276-6484

Monitors & Displays

www.Processor.com/Recortec3

AUGUST 25, 2006



21" Wide Format Rackmount Monitor

- 16:10 aspect ratio monitor mounts in 8U of rack space
- 1680 x 1050 res, 300 nits brightness, 1000:1 contrast
- ARGB, DVI-D Composite, S-video, comp video inputs
- 178/178 deg H/V viewing angles, PIP and PBP modes
- 8ms G-G response time, 16.7M colors, integ. speakers
- Supplied with mounting brackets for 19" rack mounting

RECORTEC

1620 Berryessa Road
Phone: (800) 729-7654

San Jose, CA 95133
Fax: (408) 729-3661

Server

www.Processor.com/@ProImage2

MAY 5, 2006



Flexible Mini Box

- 11" x 3" x 10.5"
- 800MHz ~ 1.4GHz Embedded CPU
- Slim CD / DVD
- Up to 4 internal Hard Drives
- 150W to 250W internal ATX Power Supply
- Optional Rack Mount or Wall Mount Kit

@ProImage®

13317 166th Street
Phone: (562) 483-0111

Cerritos, CA 90703
Fax: (562) 483-0110

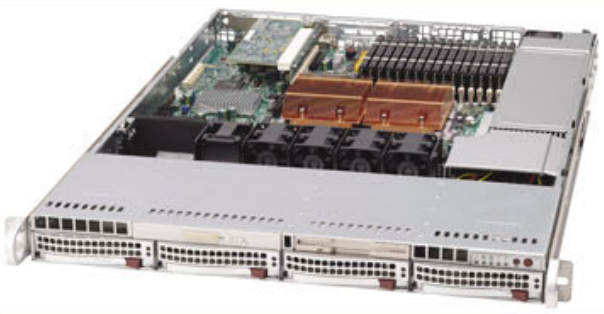
ASA Computers

Want your business to be more productive?
The ASA Servers powered by the Dual Core Xeon™ processor provide the quality and dependability to keep up with your growing business.
Hardware systems For The Open source Community -since 1989
(Linux, FreeBSD, OpenBSD, Solaris, MS, etc.)

Product Feature

- Rack solid Quality rackmount system with excellent cooling.
- Custom OS including Linux, Solaris *BSD, MS Windows, Suse, Debian, etc.
- Hardware and softwarea Raid storage.
- High density cluster nodes.
- SATA - SCSI - SAS - Fiber Raid.
- iSCSI and NAS storage appliances.
- Highend custom workstations.
- On-site warranty support for most of our products.

Dempsey/Woodcrest Server Starts at $2024



- 1U Dual Core 5030 CPUs.
- 4GB FBDIMM Memory.
- Supports upto 64GB FBDIMM.
- 120 GB hotswap hard drive.
- 2xIntegrated Dual 10/1000 LAN.

I Xeon Server Starts at $4015



- 5U Dual Xeon 2.8 Ghz 800 FSB.
- iSCSI or NAS Software options.
- 8x120 GB Sata Hard drives -Upto 18TB.
- 512 MB RAM
- Fail hard drive LED indicator.

Your Custom Appliance Solution



Let us know your needs,
we will get you a solution.

Value Server V210 Starts at $528



-1U 14" Deep 260W.
- Celeron 2.4 Ghz CPU.
- 512MB PC3200 DDR ECC Unbuffered.
- Support upto 2GB DDR RAM.
- 80GB Hard Disk.
- 2x 10/1000 Mbps LAN.

Custom OEM Solution

- Custom chassis design as per your needs for your appliances.
- Custom logo printing.
- Facilitating in getting various certifications like FCC/UL/CE, etc.

-Custom install of your images.

-Drop ship on your behalf.

Technical Expertise

We have a highly qualified technical and engineering team consisting of Redhat, BSD, MCSE, CCNA, and CNE certified engineers. They are dedicated to address any issue you may have with our hardware products. Our sales engineers are expert in providing you solution that suits your needs while keeping your budget low..

Dual Xeon 800FSB Storage Starts at $6644



- 8U Dual Xeon 2.8 Ghz 800FSB CPUs.
- 2TB of storage (36TB max).
- 1GB RAM
- NAS or iSCSI softwre options
- 2 x 10/100/1000 Gigabit LAN.

Why Do Business With ASA:

Since 1989, ASA has served customers like Cisco, Juniper, Caltech, Fermilab, and most Universities. We provide total custom solution with OS of your choice. Excellent pre-sales and post sales support. Reliable hardware at most competitive prices.

We provide approved EVAL server for 10 days

Please call or contact us for your next hardware purchase.

1-800-REAL-PCS

Price and availability subject to change without notice. Not responsible for typographical errors. All brand names and logos are trademarks of their respective companies

Navigating The Hardware Store

Put New Strategies In Place Before Acquiring Hardware

by Elizabeth Millard

• • •

With the ongoing deluge of new hardware, devices, and equipment, sometimes older purchasing tactics—such as sticking to one vendor and scouting for the best deals—just aren't enough anymore. Whether buying new or refurbished, here are some top tips to keep in mind when doing hardware acquisition.

Tap Into The Power Of Self-Diagnosis

Many devices and hardware are being developed and sold with some level of self-diagnostic capability, and IT managers would be wise to get the most comprehensive self-management possible, says Craig Wassenberg, vice president of product planning at uXcomm, a maker of systems management platforms for device and software systems manufacturers. "Verify that the device can take steps to care for its own well-being without your intervention," he says.

For example, some devices are capable of shutting themselves down if their operating temperatures rise to a dangerous level. "Far fewer devices can self-diagnose more complex problems," Wassenberg notes. "Even fewer than that can self-diagnose and still allow you to specify what you want them to do when various conditions arise." In other words, if a server overheats on Saturday, it should page Bob, but if it's on Sunday, Larry should be paged.

Although this capability is less common in hardware, it's worth chatting with vendors to find devices and equipment that can allow an IT department to set such multilayered policies.

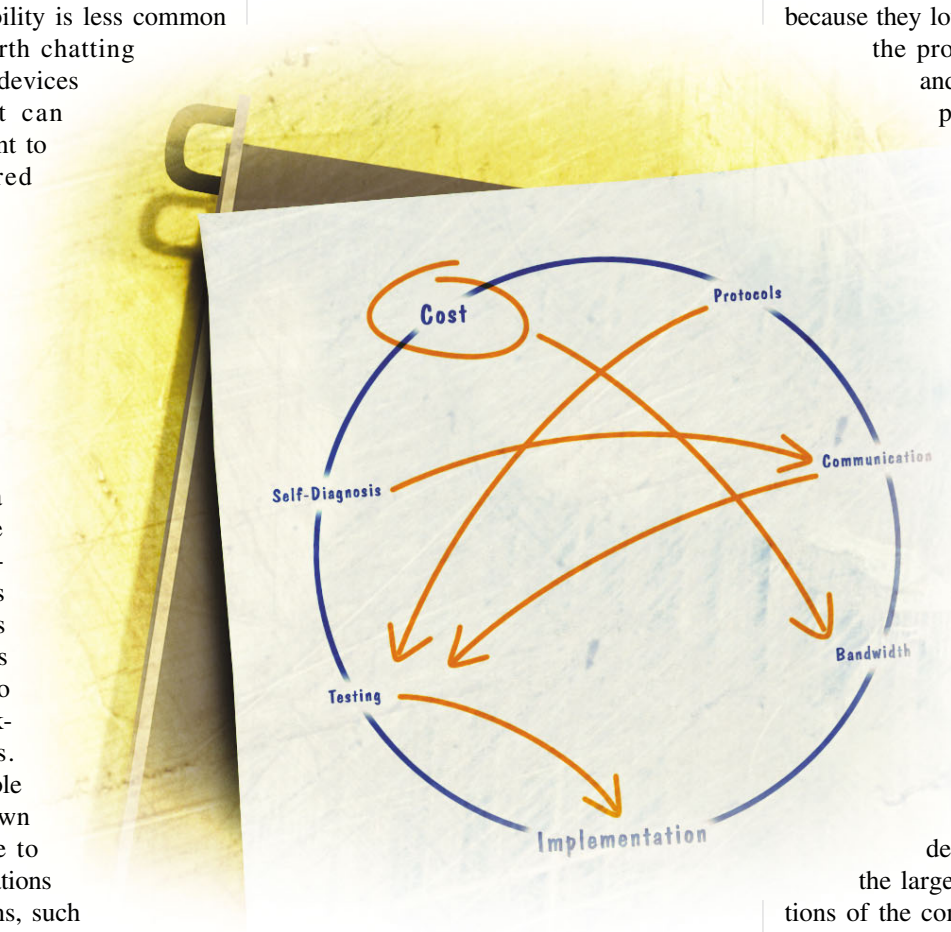
Look For Hardware That Can Communicate

In conjunction with self-diagnosis and management comes communication, says Wassenberg. Ideally, a device should be able to tell the IT department that a problem is just about to occur, as opposed to after it's already happened, so that actions can be taken to prevent crisis. Devices that are capable of monitoring their own health should be able to send alerts and notifications through multiple means, such as by email and pager, as well as check other relevant hardware if necessary. For example, a device that monitors CPU load levels could also check whether fans are shutting down or temperatures are rising.

"Think of the difference between a baby that can't tell you what's wrong vs. an adult who can tell you not only exactly what's wrong but what to do about it," Wassenberg says. "Find out from the vendor what the device is capable of telling you because hardware varies widely in terms of what can be assessed and reported."

Determine Bandwidth Usage

Whether the hardware handles security upgrades, network maintenance, data transfer, or storage capability, at some point it will be shuttling data or information over the network, which means that its bandwidth usage should be a consideration when purchasing, according to Pillar Data Systems. In a recent report titled "Top 10 Insights For Backup Consolidation," the company noted that the less network overhead used, the better. Also, just because a piece of hardware might use a large chunk of bandwidth doesn't mean it does so with efficiency. Pillar suggests finding products that have features like bandwidth scheduling, compression, multistreaming, and byte-level differential data transfer.



Verify That The Device Uses Standard Management Protocols

Typically, devices that can be managed in standard ways can be controlled by any of several different management products on the market, notes Wassenberg, and can ensure a higher amount of interoperability. For example, if IT has hardware that can monitor and report on the health of several different devices at once, it can be a boon for allocating employee time. Instead of watching several monitors or consoles, an IT manager will have just one. "Rather than having to learn several management applications, perhaps you can learn only one," says Wassenberg. "Use of standards has a way of simplifying the lives of end users and data center managers."

Buy What's Appropriate & What's Been Tested

IT and data center managers become technology gurus for a reason—usually, because they love the pace of development, the proliferation of cool gadgets, and the chance to solve tricky puzzles every day. But that fondness for the latest and greatest can also work against them during hardware purchasing, especially if some departments are asking about the newest smartphones or tablet PCs. For SMEs in particular, it makes sense to let larger enterprises "try out" the first and second wave of devices because they'll discover the bugs, and the third wave will likely be more affordably priced.

Also, it may seem obvious, but it's important to remember that whatever hardware or device is acquired, it has to fit the larger business goals and operations of the company. "IT managers know that they can't approve the purchase of expensive tablet PCs because they couldn't justify the higher cost for additional functionality," says Brian O'Rourke, senior analyst at market research firm In-Stat/MDR. "But if it makes sense for the company, and its features would work well with how the employees work, then it's worth the cost."

Easiest To Implement: Make Sure The User Guide Is Readable

A device or piece of hardware could have amazing management features, but it won't do much good if no one can figure out how to take advantage of them and the documentation muddles the situation even more. Craig Wassenberg, vice president of product planning at uXcomm, suggests taking a look at the user guide, and specifically at the explanation of any management functions. "A clear users guide covering the management capabilities of your device is worth its weight in gold, or if not that, then in blood, sweat, and tears," he says.

Most Cost Effective: Buy The Same Type Of PDAs For Everyone

Maybe Joe in accounting loves his Sidekick, while Natasha in sales swears by her BlackBerry, but that doesn't minimize the headaches in IT. For some companies, the widespread use of PDAs and smartphones has grown gradually, with departments doing the purchasing rather than IT, and the result becomes a tangle of platforms, devices, and support agreements.

Trying to support multiple devices can sap IT resources and lessen the cost-effectiveness of a mobility strategy. But if the same type of PDA or smartphone is purchased for everyone who needs one, IT can become experts in repair and upgrades for that particular device.

Server
www.Processor.com/Arbor

August 4, 2005



Professional Network Appliance Hardware Provider
Connecting Everything You Need
MBX-1736 - Intel AMT & I/OAT Technology Ready
- Intel Pentium D processor up to 3.8GHz
  Memory up to DDR2 2GB
- 6 x PCI-E Gigabit LAN / 2 x PCI-E Gigabit LAN with By Pass
- Support SATA HDD (3Gb/s) / Graphic Mode LCM

ARBOR® Embedded and Network Computing

2032 Bering Dr. San Jose, CA 95131
Phone: (408) 452-8900 Fax: (408) 452-8909

Storage
www.Processor.com/MobileIT

$4,999

May 19, 2006



More Than A Backup Device . . . With SonicWALL 3440i You'll Get **Continuous Data Protection**
Fast recovery time objectives and backup tape performance problems are driving demand for high-speed disk-based backup. CDP provides enterprise-class features, including continuous data protection, remote management, and hands-free offsite backup, without enterprise-class cost.

MOBILE IT, Inc.

1755 E. Park Place Blvd., Ste. 200
Stone Mountain, GA 30087
Toll Free: (866) 884-8462
Phone: (770) 465-6147

Storage
www.Processor.com/ExcelMeridian4

November 4, 2005



Starting At
$1,895

TravelStor 8C RAID is designed to fit the needs of smaller project deployments or small businesses that require RAID data protection.
- Budget minded performer
- Hot swap hard drives
- Fixed or hot swap power & cooling
- Available with battery back-up module to protect cached data
- Full featured RAID functionality
- Integrated GUI management software; Any OS

Excel MERIDIAN DATA, INC.
A subsidiary of Alanco Technologies, Inc.

3220 Commander Drive, # 101
Carrollton, TX 75006
Phone: (800) 995-1014
Fax: (972) 980-0375

The Changing Face Of Hardware Acquisition

Continued from Page 1

drives its adoption—and drives, in turn, a wider selection of new hardware. Patrick Zanella, technical product manager for Akibia, says that he sees data centers "moving more towards the open-source solution because of, No. 1, cost." He also argues that open source, as both a model for software production and a model for business distribution, has matured in the last year, leaving many IT managers less wary of using it.

The Problem With Heat

Open source isn't the only disruptive issue on the horizon. Heat is. And according to industry experts, it may continue for years.

As the cost of cooling dense racks of blade servers continues to rise, eco-friendly, low-heat systems are gaining traction. Take Sun's T servers (www.sun.com), which, according to Sun, consume 30% less power and 30% less cooling, yet offer throughput equal to or beyond the competition.

"I think that certainly changes the game," says Zanella, "because it forces folks to take a look and say, 'Hey, this server uses less power than a light bulb to run.'"

And with the need to reduce heat comes the need to reduce servers. Loring and Zanella believe the days of one app/one server are on the wane. Instead, data center owners are buying fewer machines and buying them in their most basic configurations—"pretty much minimally configured," in Zanella's words—then upgrading them to cope with expanding needs and applications.

"We're finding that a lot of users, after they're installing their systems, they're installing more applications," he says. As they grow, they add components, CPUs, memory, and bigger drives, "to maintain the level of delivery that their users are expecting."

Money Matters

Gone as well are simplistic ways of looking at hardware costs. The initial cash layout—whether it's $5,000 or $500,000—is just one part of the equation. Now, ROI models and long-term expense issues factor into the mix. "Those are premium questions that are asked up front, even before they even look at it," says Loring. "People are looking at the overall total cost of operation."

"We're now seeing that users are trying to ask, 'What will it take me to operate that system for the next 12/24/36 months?'" notes Zanella. "How much is it going to take me to power that system, cool that system, house that system?"

In the end, that means the most disruptive technology is not a new technology at all. It's cost, as it always has been and perhaps always will be.

As the saying goes, so much to buy, so little cash . . .

Auctions, In Reverse

One technology that's changing the way hardware is bought, as opposed to the hardware itself, is the reverse auction. Companies that use reverse auctions free themselves of complex RFPs and long sessions with vendors. Instead, they release their needs over reverse auction systems (such as HedgeHog at www.hedgehog.com) or software (such as Ariba's Sourcing Solutions at www.ariba.com) and then let vendors bid on them in open competition, driving the price down and improving warranty and service options in the process.

The View On Vista

In addition to open-source, eco-friendly systems and plain old price pressures, Vista's pending release could trigger hardware upgrades en masse, mostly for desktop and notebook PCs.

Despite Microsoft's well-publicized scalebacks in recent months, Vista is still oozing features, among them a much-hyped Aero interface that puts intense demands on the GPU.

In response, Microsoft has released guidelines for enterprise hardware planners, splitting Vista-ready systems into Windows Vista Capable PCs, which can support such features as domain join, and Windows Vista Premium Ready PCs, which support all of Aero's bells and whistles (including 3D task switching, translucent windows, and transition effects).

If you plan to upgrade existing machines to Vista, you'll need machines with an 800MHz processor (32- or 64-bit) and 512MB of RAM for a stripped-down Vista Capable PC. A Vista Premium Ready PC will only run at 1GHz or faster, with a whopping 1GB of RAM—and that's the minimum. Hard drives will need at least 15GB of free space to support Vista's advanced feature set, too.

What Are You Blocking & Why?

Continued from Page 1

Yet each of these is an avenue for spreading malware.

It's a losing battle trying to keep up with all the sites that distribute malware. Filtering appliances require hundreds of thousands of updates to keep track of illicit sites. Companies such as Symantec and Websense do an excellent job of blocking traffic, but no company can keep perfect pace with the exponential number of harmful sites.

Even more critical, while Web filtering is more of a productivity issue—addressing the employees who waste time at gambling sites or viewing illicit images—it's malware, viruses, phishing scams, and other threats that have a more direct impact on smaller companies. Some infected small businesses have been unable to continue operations for several days. And larger companies have a harder time keeping track of personnel issues, whereas a smaller company can keep tabs on nonproductive employees easier. It's all a matter of focus, says Joshua Linn, a CP Secure spokesperson. "There are levels of severity, but malware installation poses a more severe and malicious threat."

Linn says that the criminals who create malware have a specific goal: to compromise confidential company information, steal credit card numbers, install key loggers that crack network passcodes, and introduce Trojan horses than can cripple company servers. Ancillary to this is the fact that the U.S. government is more actively creating antispyware legislation and large credit card companies are developing data security standards as a way to focus efforts on malware as the prime threat.

"There are a lot of gray areas when it comes to blocking Web sites to keep employees productive," notes Linn. "How much should you let an employee surf where they want on a lunch break; how much freedom do they have? It's better to have a more unified threat management approach. In your home, you might have a bolt lock, an alarm system, and a guard dog. Security requires the same tiered approach, so we recommend a URL filter, virus checkers, and a robust appliance that scans all incoming traffic—over the Web, email, or any other method—to make sure malware cannot infect networks."

"Thousands of files found on file-sharing networks are actually malware [clients] masquerading as the latest music video or song, just waiting for an unwitting employee to upload it from their portable music player onto their desktop computer at work," adds Tim Johnson, a product manager at the network security company SurfControl. "The user may never intend to infect the network, but through simple ignorance or open defiance of the company's appropriate-use policy can wreak havoc on a network. Malware should be blocked when it tries to write to the hard drive, not when it executes."

New Malware Threats

Spyware and malware are the new threat for small to midsized enterprises; over the past couple decades, motives have changed from malicious behavior to actual criminal intent.

	'80s-'90s	'90s-Present	Present
Main Attack Vectors	Storage Media	Email	Web
Malware	Viruses	Worms Viruses	Spyware Worms Viruses
Motive	Malicious Hobby	Malicious Hobby	Professional Theft

SOURCE: CP SECURE

Prevention Is Key

In addition to blocking malware from installing, Johnson recommends that companies create strict policies and then enforce them as a way to prevent infection. "Policies should be enforced as to what users cannot install [and] whether all users or a subset of users are allowed to run certain applications and when. Rules need to be enforced immediately at the point of violation," he says. "Prevention is always desirable over remediation."

One other problem with blocking Web sites and not having policies or preventing malware from installing is that users are getting more mobile, says Vlad Gorelik, the chief technology officer at Sana Security. According to Gorelik, there are three ways that malware typically infects small and midsized enterprises. One is through what he calls "social engineering" where a user is fooled into downloading a program that has some benefit but also includes malware or through a phishing scam that tricks the user into revealing a username and passcode, thus infiltrating the network.

A second point of entry is through a network vulnerability, such as an unchecked buffer overrun in a software program. A third method is penetrating networks through a PC that is not configured properly or has an open guest account for network shares.

"Current A/V and antispyware solutions fall short since they have a very reactive approach. They need to have a signature for a piece of malware to protect against it," he says. "The malware today has lots of variants, so the number of signatures is continuously growing. Often signatures are delayed by days, which means a piece of malware can be on the box for days before a signature solution detects and removes it."

Ultimately, employees should be given the latitude to browse the Web, research, and perhaps even take breaks where they check stocks or browse eBay. Policies and malware blocking will give them—and the entire organization—more peace of mind.

Malware Blocking Products

Product	Description	Web Site
CP Secure Content Security Gateway	Scans all network traffic including Web, email, and FTP for malware clients	www.cpsecure.com
McAfee IntruShield Network IPS Appliance	Protects networks and endpoints from spyware, malware, zero-day, and other attacks	www.mcafee.com
Sana Security Primary Response SafeConnect	Detects and removes malware based on behavior, not on signature files	www.sanasecurity.com
SurfControl Enterprise Threat Shield	Protects desktop and mobile users from spyware, adware, keyloggers, IM, P2P, etc.	www.surfcontrol.com
WatchGuard Firebox Edge	Firewall, VPN, and URL filtering for smaller businesses	www.watchguard.com

SPONSORED LINKS

Barracuda Networks Web Filter 310
Enforces Internet usage policy by blocking access to Web sites and Internet applications not related to business, and it eliminates malware from your organization
www.Processor.com/Barracuda310

Cloudmark Collaborative Security Network
Provides real-time feedback on spam, phishing, viruses, and other evolving threats; combined with Cloudmark's fully automated message analysis and classification process, you can block the latest threats within moments of attack origin
www.Processor.com/Cloudmark

CP Secure Content Security Gateway 1500
Real-time gateway anti-malware appliance that protects against viruses, worms, spyware, and other malware on HTTP, SMTP, POP3, IMAP, FTP, and HTTPS
www.Processor.com/CP2

Secure Computing Webwasher Secure Content Management Suite
Offers best-of-breed security solutions for individual threats, including worms and viruses in spam emails, malware on active Web pages, spyware, and ransomware
www.Processor.com/Webwasher

The Vendor Dilemma

Be Careful How You Choose

by Chris A. MacKinnon

• • •

Choosing the right vendor can be likened to picking a surprise bag in a candy store. It's a dilemma to begin with because you never know what you are going to get. Some bags appear to hold the best goodies but turn out to be a disappointment. Others look nothing short of shabby, but surprisingly, they turn out to be just what you wanted. The difference between the two, however, is this: With a surprise bag, you get the sugar regardless, but choosing the right vendor requires more than a simple guess—it means proper investigation and aptitude.

It's obvious that not all PC vendors are the same in terms of procurement, free services they offer, manageability, and support services. So what are the most important factors for data center and IT managers at small to midsized enterprises to consider when choosing the right vendor? Is price the most important issue, or is a long-term relationship more important? According to Gartner analyst Leslie Fiering, you need to consider your future against your short-term gain.

Price vs. Relationship

Fiering says when you are dealing with an interchangeable commodity, it's a no-brainer. "When it's a one-time transaction and you are not going to have any kind of relationship with the seller, well then absolutely it makes sense to shop for the very lowest price (and to be almost ruthless in negotiation because you don't really care what the circumstances are with that supplier), as long as you get this commodity and know that there are other places to get the next transaction." She adds that if you consistently shopped for the lowest price, your supplier would not make a fair living and not deal with you anymore. "The optimum," Fiering says, "is to have two or possibly three suppliers and balance them against each other."

Timothy C. O'Rourke, vice president of computer and information services at Temple University, spoke to us about his own situation. "Working within tight budget parameters, I always consider price. Having said that, the price of a particular piece of hardware must be considered in the context of long-term value rather than short-term cash outflows. It must be considered as part of an overall service, maintenance, and replacement strategy, as well has how it fits into the overall application requirements and operating system strategy of the organization."

In the same vein, Fiering notes, "The bottom line here is this: Price is important because we have limited capital budgets, and it is a negotiating lever, but you have to understand your supplier needs to make a fair living. If your supplier doesn't feel like it is selling to you at a fair price, they'll either start cutting back in places where you don't see it immediately, and it could really hurt you, or you don't get the service and support you thought you would, or in a worse case, they leave."

Fiering adds, "I'm not saying you bend over and over pay, but if you drive all your focus to the lowest price, then you miss other important factors in the relationship, and if your supplier is not making a fair profit, then they may not be willing to do business with you."

Go Long-Term

O'Rourke says the long-term relationship of a vendor is extremely important. He comments, "Computer technology hardware has a relatively short lifespan, usually much shorter than the life cycle of the applications it runs. As hardware needs replacement, it is important to have vendors that provide replacements that will continue to run the applications built for it." O'Rourke says as the need for disaster recovery and business continuity grows, many companies cannot afford to buy additional hardware to have as backups or pay third-party disaster recovery sites to have the required hardware available, so they need to rely on vendors to supply hardware on short-term notice.

So what does it take to pick the right vendor? Fiering says, "First of all, nobody offers free service. So what we recommend, before you make an acquisition, spend time looking at your requirements (which your RFP needs to include). When you've been very clear about your requirements, you can see what the match is with the right supplier, and this is when it becomes clear that not all suppliers are equal." Although O'Rourke's data center is quite large, he says vendor principles don't change much even at that level. "The factors I want my data center to consider are reliability of systems, redundancy, and the ability to recover applications in a disaster situation."



The Right Combination

Choosing the right number of vendors also depends on your situation. Fiering says in a single-vendor relationship, there is no finger pointing, and the vendor knows the customer very well. But the downside of having a single vendor, Fiering says, is that the customer can get taken for granted. She elaborates, "There are definitely trade-offs when you go from single-vendor to multivendor. Once you've gone to multivendor, it is very hard to get back to single-vendor status. The advantage of having a dual vendor is that it keeps both vendors sharp because they realize they could lose the business because you are not a captive audience; also, if one vendor doesn't have what you are looking for, it is easy to shift your business in the direction of the other vendor."

"Say you have two suppliers," Fiering concludes, "You're going to need to work with them over time, so you want to keep the pricing fair; you don't want them to be skimming off too much fat from you that everybody takes huge bonuses to Bermuda for four weeks at the end of every year."

What To Look For In A Vendor

Gartner analyst Leslie Fiering advises to look for the following when choosing vendors:

- Financial stability
- Service and support
- Ease of doing business
- Flexibility
- Scalability

The Dual-Vendor Dilemma

Having a single source can be both good and bad; sometimes dual vendor means better pricing but more headaches. Agree or disagree?

Timothy O'Rourke, vice president of computer and information services at Temple University: "I agree with this. Having a single source makes life in a data center much easier. It reduces the purchasing bureaucracy; it allows software developers to work with one technology; and it assures interoperability of systems, and it makes preparing for a disaster much easier. However, the downside is that vendors know when they have a good thing going, so there is a much greater likelihood of having prices increase and service decrease."

Storage
www.Processor.com/PowerFile1

September 15, 2006



The new **Active Archive Appliance (A3)** features:

- A turnkey archiving appliance—set up in 30 minutes
- Start with 3.4TB, scale to 30TB per volume
- Work with existing ILM software tools
- Mount as standard network share
- Store on industry-standard media with 50+ years life
- Provides protection in an all-in-one archival system

PowerFile®
ACTIVATE YOUR ARCHIVES

3350 Thomas Road
Phone: (866) 838-3669
Santa Clara, CA 95054
Email: sales@powerfile.com

Storage
www.Processor.com/areca

May 19, 2006



PCI-Express SATA II 3Gb/s RAID Controller
Featuring RAID 6 and also 0, 1, 0+1, 3, 5 and JBOD 4, 8, 12, 16, 24ports, Intel I/O Processor, DDR Memory Online RAID Level/Stripe Size migrations, Online RAID Capacity expansion and RAID level migration simultaneously, NCQ and Staggered Spin-up Support, Battery Backup ready, I2C, Full OS Support.

areca®
2861 Saturn St. Unit B
Brea, CA 92821
Phone: (714) 961-0800
Fax: (714) 961-0899

Workstation
www.Processor.com/Arbor2

August 4, 2005

SUPERMICRO®





The 1st SATA RAID 5 Hot-swap Midtower Chassis in the World!

- Dual Intel Xeon processors up to 3.06GHz
- Super X5DAL-TG2 server board/533FSB
- Up to 8GB ECC Reg. DDR 266 SDRAM
- 1 8 x AGP Pro 1.5V slot
- 2 64-bit PCI/X 66/133, 2 32-bit PCI
- Dual Gigabit LAN Ports
- 12" x 9.8" ATX form factor

ARBOR®
Embedded and Network Computing

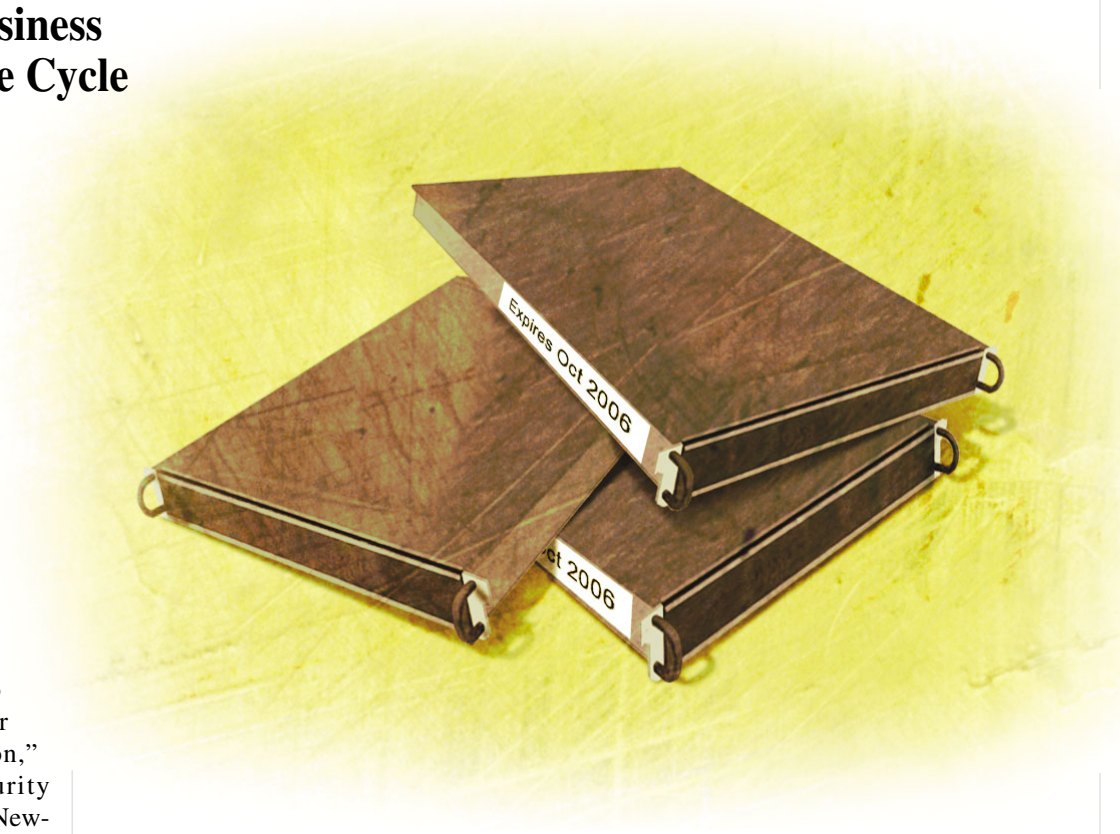
2032 Bering Dr.
Phone: (408) 452-8900
San Jose, CA 95131
Fax: (408) 452-8909

Hardware Life Cycles Enter A New Era

How Technology & Business Are Morphing The Life Cycle

by Christian Perry

• • •



When precisely does hardware expire? When should it expire? Today, those questions weigh heavily on the minds of IT managers, who constantly struggle to pinpoint the best time to replace or upgrade hardware. Although the durability of devices is higher than ever, other factors tend to overshadow the process of solving the life cycle formula.

"Even though hardware components are lasting longer, the business and cultural pressures are forcing end users and IT managers to migrate to newer, [higher-specified] systems to meet the new demands for greater functionality and power and fashion," says Paul Davis, a global IT security strategist. "Just look at cell phones: Newstyled businesses and charity programs have been developed that take old phones that people want to dispose of as they get the latest model. These phones are not broken—they just don't have the latest bells and whistles."

Indeed, those bells and whistles can prove integral to core business needs, such as the ability for claims agents to use picture phones out in the field. Charlie Mantione, vice president of services for IT services and solution provider Dimension Data, explains that durability is actually a utility that supports the user and application. "Although the devices can survive harsh environments and frequent use, the users will determine if the platform supports their needs," Mantione says. "What was thought of as a 'nice to have' is now a core in certain environments."

Performance Perspective

Just as new hardware-based functionality can impact the hardware life cycle, so can the software running on those devices. As programmers increasingly find ways to take advantage of multithreading and other system-intensive technologies, companies are discovering that older systems—even those in peak physical condition—can more quickly outlive their usefulness if they're not up to par performance-wise.

According to Davis, there has always been a balancing game in the typical enterprise when it comes to determining the end of life for particular devices. He says IT departments traditionally write off devices roughly around three years of age, whereas the business side of the enterprise will consider that life span as more like five years. However, there are signs that the battle might be waning.

"For some organizations with limited resources, or [for those not] required to deliver extreme performance, equipment that was considered to be out of date could be given a new lease on life by leveraging solutions like Linux that tend to be less resource-demanding for everyday work," Davis says.

Yet solutions that can extend the life of hardware don't always apply to the process, particularly for enterprises that require hefty computing power. Although companies might be able to boost the performance of older systems by upgrading components, it's difficult to address increased heat and power output that newer systems handle so well. Davis also notes that newer, more efficient systems pack in more CPUs to provide virtualization, a technology that can easily render older equipment irrelevant.

Hardware As Commodity

The continuing commoditization of computing also factors into the ever-changing hardware life cycle. Davis says that by leveraging server imaging solutions and greater network flexibility, companies are moving farther into on-demand computing. This new service delivery model finds

Components
www.Processor.com/TRacks3

September 22, 2006



Custom solutions starting at **$200**

- Customizations without sacrifices
- Available in 1U / 2U / 3U 15" deep chassis
- Ideal solutions for ISVs
- Compatible with Intel/Supermicro/Tyan motherboards
- Available Zippy & SPI power supplies & Sunon/Delta fans
- Minimum Qty: 25 to 50 pieces
- Prototypes ready within three weeks

TotallyRacks.com
The Rackmount Expert

14137 Tiger Lilly Court
Phone: (951) 833-3319
Corona CA 92880
Fax: (951) 340-2089

Business Productivity
www.Processor.com/Altiris51

August 11, 2006

Service & Asset Management Suite
Combines enterprise asset and service management disciplines into a single Web-based architecture, repository, and console helping unite disparate departments and processes.

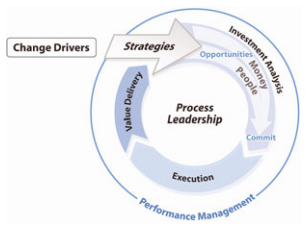
Key Features & Benefits:
- Simplify implementation of out-of-box ITIL asset and service management processes
- Actively track IT asset location, configuration, deployed versions, relationships, and historical information
- Actively track software and hardware usage for reallocation and contract negotiation
- Support corporate Sarbanes-Oxley initiatives
- Proactively resolve incidents and problems to ensure asset and service availability
- Allow employees to resolve their own issues via self-help

altiris
intuitive > manageability

588 West 400 South
Lindon, UT 84042
Phone: (888) 252-5551
Fax: (801) 226-8506

Business Productivity
www.Processor.com/PlanView

June 30, 2006



PlanView Enterprise: A combination of enterprise software & best practices that enables you to make better decisions around strategies, projects, services, and applications.

Portfolio Management Solution
- Delivers improved visibility and greater strategic alignment
- Fewer redundancies and increased efficiency
- Ability to focus limited resources on higher-value work

PLANVIEW

8300 N. Mopac, Ste. 100
Austin, TX 78759
Phone: (800) 856-8600
Fax: (512) 346-9180

Network & Systems Mgmt.
www.Processor.com/Tripwire3

August 11, 2006



Tripwire Enterprise monitors and detects change across the IT service stack, providing an essential detective control for passing IT audits and enforcing change management.
- Close the loop on change management
- Demonstrate regulatory compliance
- Reduce downtime and unplanned work
- Improve security

TRIPWIRE

326 SW Broadway, 3rd Floor
Portland, OR 97205
Phone: (800) 874-7947
Fax: (503) 276-7643

Network & Systems Mgmt.
www.Processor.com/AdventNet15

July 28, 2006

ManageEngine NetFlow Analyzer 5.5 EA (Early Access)
Web-Based Simple Bandwidth Monitoring Tool
NetFlow Analyzer 5.5 uses Cisco NetFlow data exported from routing devices to analyze network traffic and report on bandwidth usage across the network. With instant real-time bandwidth usage reports on top applications, conversations, and hosts using bandwidth; NetFlow Analyzer gives valuable insight into bandwidth usage in your enterprise without the complexity and expense involved in deploying hardware/software probes.

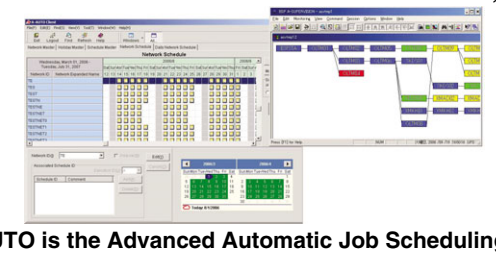
What's New In Release 5.5 EA:
- Support for Cisco NBAR and Scheduling Reports
- Support for NetFlow V9
- IP Address-Based Application Mapping
- Interface Grouping and ToS/TCP

AdventNet
Excellence Matters

5200 Franklin Drive, Suite 115
Pleasanton, CA 94588
Phone: (888) 720-9500
Fax: (925) 924-9600

Network & Systems Mgmt.
www.Processor.com/BSP

August 11, 2006



A-AUTO is the Advanced Automatic Job Scheduling & Monitoring System
- Simplifies complex operations by managing application batch processing
- Support job execution on Unix, Linux, AS/400, Windows server, even z/OS.
- Automates application jobs (ERP, CRM, Database, etc.)
- Download our 30-day trial version at www.bspi.com

BSP

535 Fifth Ave. Suite 1001
New York, NY 10017
Phone: (212) 398-9501
Fax: (212) 398-9502

business owners and managers moving away from concerns about the particular components and instead asking for more disk space and more power.

According to Rich Cheston, an executive director and distinguished engineer at Lenovo, enterprises tend to make IT-focused decisions based on user groups. For example, mobile users tend to be "mission-critical" or "front-line" users, and when dealing with these types of applications, the process of measuring the impact upon a company's revenue—instead of simply analyzing the expense—becomes easier.

"If you consider the beginning of mobile PCs in general, they drove the total cost of ownership of IT up in organizations," Cheston says. "Therefore, if the increased cost could have been justified against increased productivity, then mobile devices would never have taken off in the first place. So, to extend this further logically, as more and more devices move to mobile, the view that hardware is totally a commodity must be decreasing. Also, when you take into consideration today's service and support tools available on PCs, you can more clearly see that not all notebooks are created equal."

The heavy impact of services on today's hardware is also echoed by Ed Flachbarth, vice president and co-founder of Canvas Systems, who says that viewing hardware as a commodity creates a faster turnaround on IT equipment. "Manufacturers have the ability to mass-produce products so that anyone can sell them," Flachbarth says. "But the difference between one piece of IT equipment and another is the services that a company has to offer along with the equipment."

The Many Faces Of The Hardware Life Cycle

The larger the enterprise, the more difficult it is to accurately gauge hardware life cycles. Life cycle applications can help companies obtain a good grasp of their hardware needs, and they also provide a glimpse at the number of factors required to obtain effective forecasts. For example, here's a look at just some of the input parameters allowed by PRICE HL, a hardware life cycle estimating model from PRICE Systems.

- **Hardware parameters:** Mean Time Between Failures; Mean Time To Repair; development and nonrecurring production costs; cost and floor space of test sets
- **Deployment and employment data:** Number of systems being supported; usage periods of up to 60 years of service life; maintenance and support logistics; number of locations for equipment/spares and support organizations
- **Unified data:** Length of support pipelines; scheduled maintenance; stocking levels, safety coefficients; transportation rates; labor and space rates

Choosing The Right Hardware Life Cycle

A constant challenge for small to midsized enterprises is balancing a hardware life cycle with the needs of the enterprise, particularly when the outlooks of business and technology tend to vary widely as companies look ahead. But according to global IT security strategist Paul Davis, these two sides of the enterprise should work together when hardware is concerned.

"ROI [return on investment] should be the driving principle for IT managers," Davis says. "The IT managers need to get business savvy and be at the table with the business decision-makers, finding ways to leverage the IT department to deliver a competitive advantage. In that way, the technology roadmap will be aligned with the business goals."

According to Rich Cheston, an executive director and distinguished engineer at Lenovo, the most accurate method for choosing an effective life cycle involves dividing the company into a set of user groups. For example, the fact that other enterprises choose company-wide desktop life cycles of four years doesn't make the same strategy right for other companies, such as financial services companies, where seconds of performance difference between PCs could represents millions of dollars of lost profits to bonds traders. For those companies, the desktop life cycle might be every six months, as long as processing power continues to ramp upward.

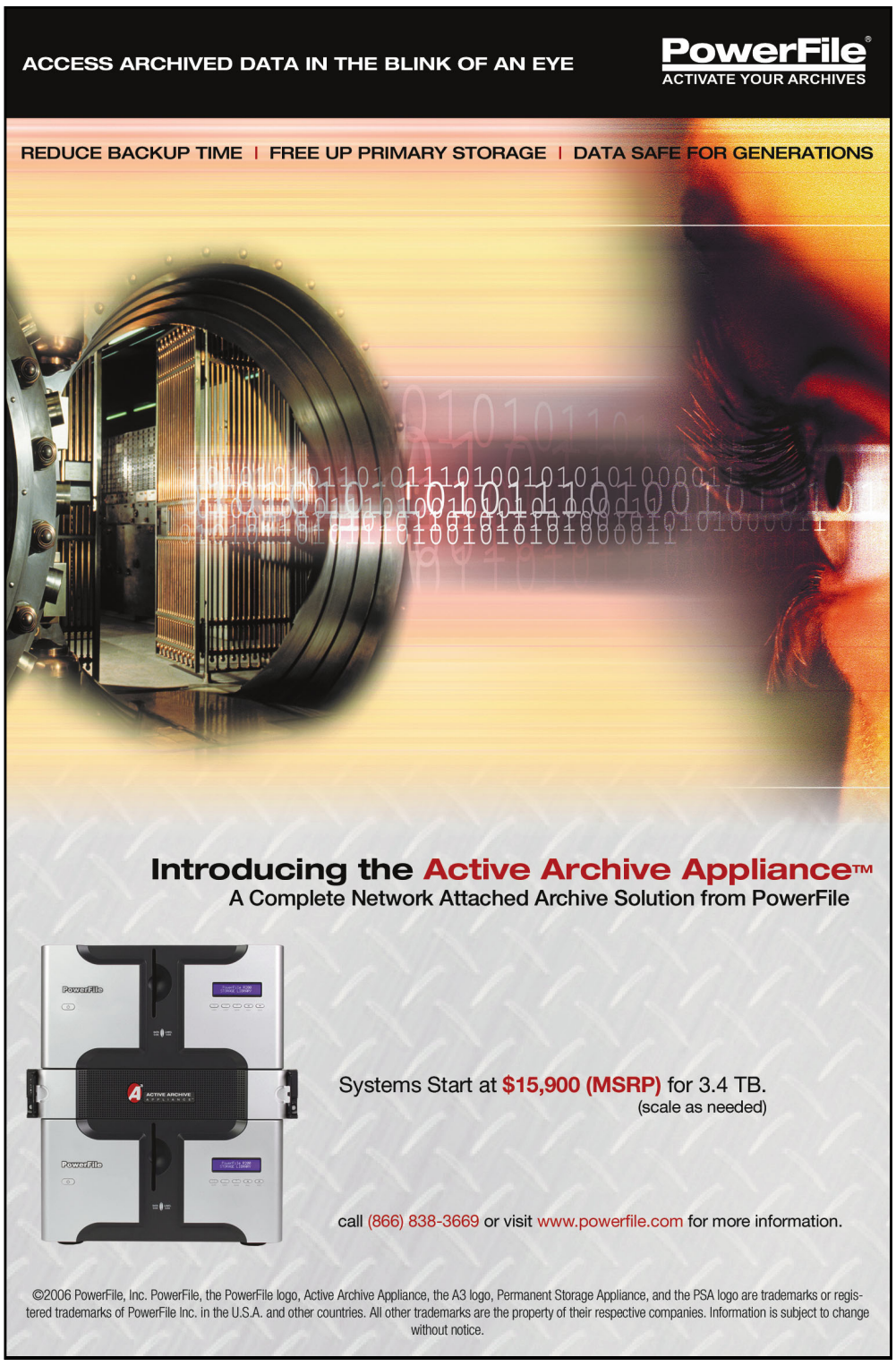
"The net result is [that] many factors drive life cycle rates, and each corporation is unique, but on average, the life cycle of a mobile device is two to three years—driven heavily by the introduction of new technologies over time—whereas desktops are three to four years because they are used inherently differently than notebooks," Cheston says.

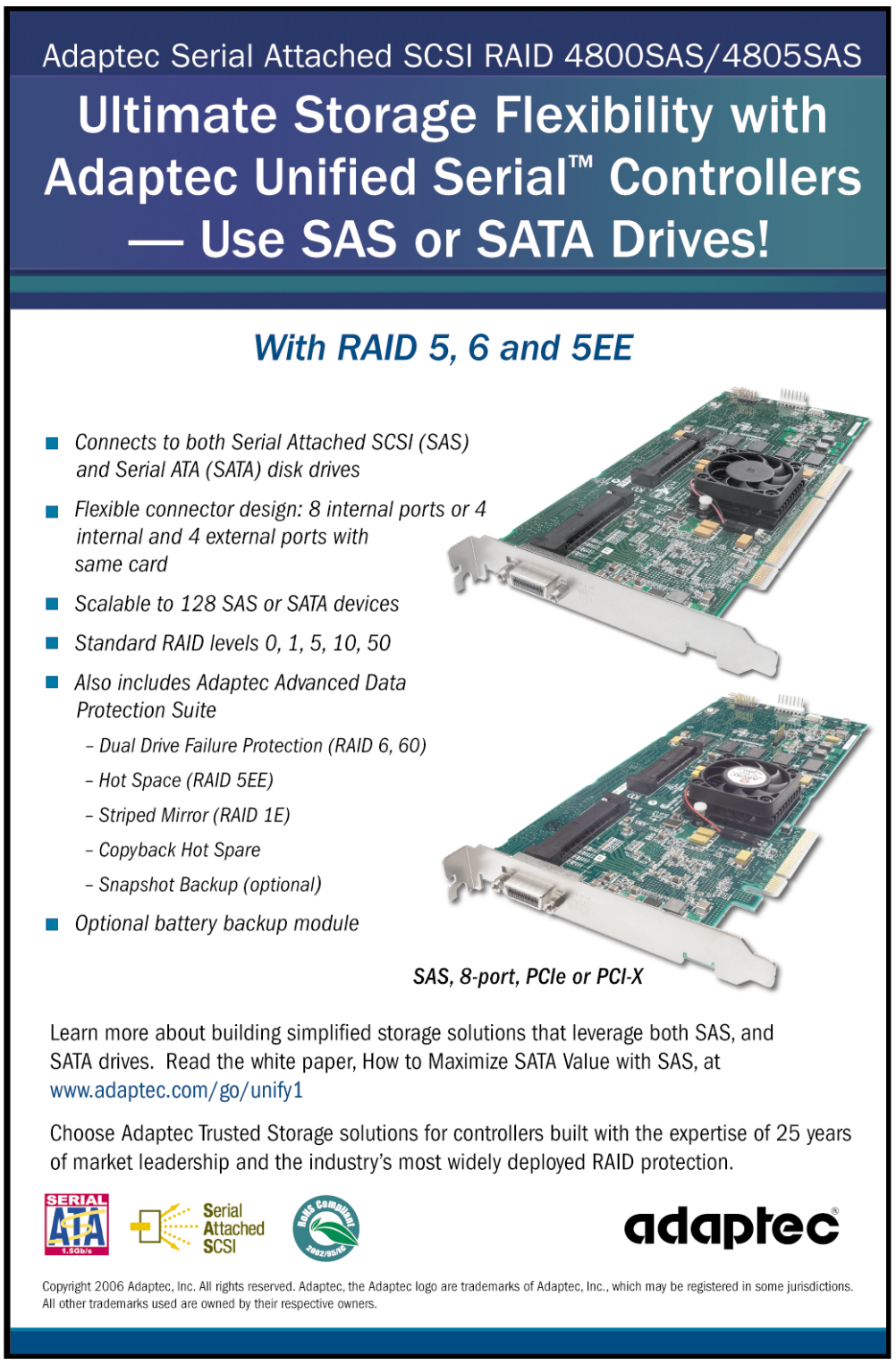
Working In Unison

While some technologies force companies into shorter hardware life cycles, others are extending those cycles. Flachbarth notes that virtualization software allows companies to run several virtual machines from one physical server, which in turn allows companies to extract more lifetime from that server and prevents constant replacements or upgrades. Yet even when employing such technologies, enterprises remain well served to keep IT in tune with business practices.

"Organizations are focused on getting the maximum return on their investments while meeting all the service- and operation-level agreements," says Bruce Fad, vice president of solutions development for PRICE Systems. "The organizations are getting more aware that they cannot separate out the technology or hardware, people, business, vendors, and customers from each other. All the entities have to work together to achieve the business objectives. Adherence to the best practices and being more agile is the word of the day."

> **"Although the devices can survive harsh environments and frequent use, the users will determine if the platform supports their needs."**
>
> *-Dimension Data's Charlie Mantione*





A Window into Wireless Networks



WP150
Only
$249.00

Wi-Net Window gives you a clear picture

To install, expand or operate a wireless network you need to be able to see critical information about where the best location is for components, what access should be allowed and where or what security is in place. The new handheld Test-Um Wi-Net Window Analyzer gives you all the critical information you require and more! Take a look at all of its advanced features:

- Full alpha/numeric LCD display shows all information clearly and completely
- Picks up IEEE802.11 wireless signal types b and g
- Signal strength shown as a lighted bar and as a percentage for clarity
- Shows component name and channel of transmission
- Lists and logs all received wireless transmissions in the area for inspection with constant scanning
- Audible network pick-up signal
- Displays encryption condition on each wireless component
- Lists each signal as either an access point, an ad-hoc or Twin network type
- Ping function accesses IP addresses and determines an internet link condition
- Negotiates with network DHCP for component ID
- Shows router, DNS and target information
- Auto-off
- Lightweight: less than 8 ounces with batteries installed

We Make It BEST in the USA

Test-Um Inc.
The Intelligent Test Solutions Company
www.test-um.com
805-383-1500 • FAX 805-383-1595

JDSU

Altiris Software Virtualization Solution—A Revolutionary Approach To Software Management

Lets You Instantly Activate, Deactivate, Or Reset Applications



BY PLACING applications and data into managed units called Virtual Software Packages, Software Virtualization Solution allows you to instantly activate, deactivate, or reset applications and completely avoid conflicts between applications, without altering the base Windows installation.

Software Virtualization Solution ensures applications use correct files and Registry settings, without modifying the OS and without interfering with other applications. This software management solution lets you host multiple versions of an application on the same system without conflicts between older and newer files. And you can easily activate or deactivate your applications based on need by sending a single command to the client systems.

Avoid conflicts and simplify software management with Altiris Software Virtualization Solution.

- Eliminate application conflicts
- Reduce testing time for rollouts
- On-demand application provisioning
- Supports any management framework
- Instantly repair damaged applications

Software Virtualization Solution integrates with the Altiris service oriented management platform, so you benefit from the native integration with Altiris award-winning service, assets, and systems management solutions.

Download a free evaluation copy at www.Processor.com/Altiris8.

Altiris Virtualization Solution

Helps you avoid conflicts between applications, without altering the base Windows installation

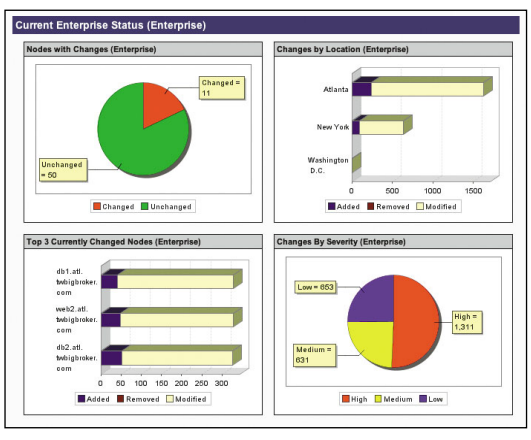
(888) 252-5551

www.Processor.com/Altiris8

altiris
intuitive > manageability

Now You Can Detect All Changes To Database Structures With Tripwire Enterprise

Provides Increased Visibility So You Can Quickly Reconcile Changes



TRIPWIRE ENTERPRISE/DB for databases is the new Tripwire Enterprise component that monitors and detects all changes to database structures. Increased visibility into database structure change enables staff to quickly reconcile changes with authorized work orders and focus remediation efforts on undesired changes. The Enterprise/DB component identifies what changed, who made the change, when, and how the change was made.

Change is the most significant threat to an enterprise's compliance status, security posture, and ability to deliver high-quality IT services. Just as a chain is only as strong as its weakest link, an IT service stack is only as controlled as its least controlled component. Tripwire Enterprise independently audits changes across the entire IT service stack—servers, desktops, middleware, directory services, network devices, and now, databases.

The various components work together, ensuring all changes are auditable by providing a trusted and verifiable audit trail of all system changes. This helps to reduce unplanned work, provides auditable data to simplify IT audit preparation, and supports services quality and security initiatives.

The Enterprise/DB component broadens Tripwire Enterprise's coverage of the service stack, providing a single point of management control for ensuring all changes are auditable, all changes are authorized, and that all unauthorized changes are investigated.

Tripwire Enterprise/DB

Provides a single point of management control for ensuring all changes are auditable and authorized

(800) 874-7947; fax: (503) 276-7643

www.Processor.com/Tripwire4

TRIPWIRE

TST Terabytes Server Storage Tech Corp.

ZIPPY Seagate MiraDeed Technology Corp LSI LOGIC BROADCOM FUJITSU

3ware adaptec HighPoint PROMISE Maxtor

Western Digital



Serial Attached SCSI

SERIAL ATA 3Gb/s SCSI

ESR-212

EIA-310-D 19" 2U Rackmount Chassis
Support SATA, SATA Multilane, SATA SFF8087
Support SAS Direct Attached, SAS Wide Port Expander and U320 SCSI
Support 12 Hot Swap 3.5" HDD + 2 x Fixed 2.5"HDD
Support i2c Redundant Power Supply



ESR-104



ESR-208



ESR-316



ESR-420



ESR-524

TST USA
14257 E Don Julian Road
City of Industry, CA 91746
Tel: 626-968-8851
Fax:626-968-5518
Email: info@tstcom.com
URL:http://www.tstcom.com

TST U.K.
36 Flint Way, St. Neots,
Cambridgeshire, PE19 2RU U.K.
Tel: +44 (0) 2070 993 467
Fax:+44 (0) 2070 993 468
Email: stephen@tstuk.com
URL:http://www.tstcom.com

TST Taiwan
4F.,No 123-7, Singde Rd
Sanchong City, Taipei, Taiwan R.O.C.
Tel: +886 2-2278-9373
Fax:+886 2-2278-9671
Email: jjen@tstcom.com
URL:http://www.tstcom.com

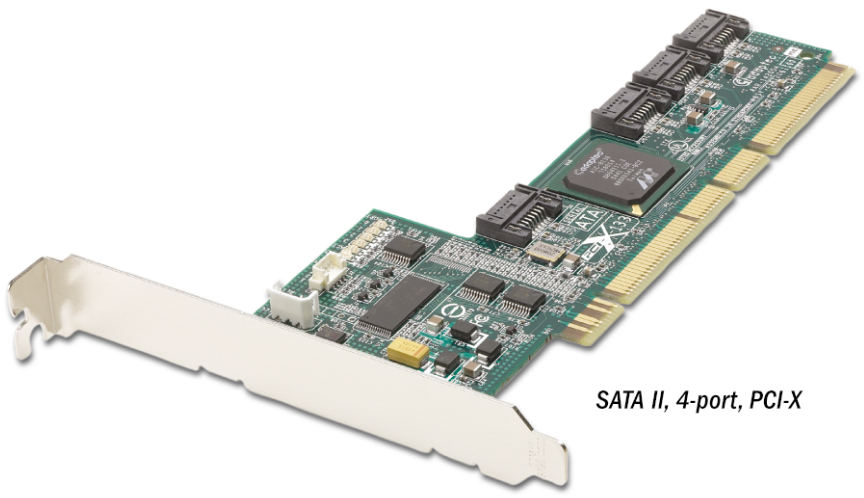
Where To Buy

AcceleTech AMAX ISO-9001 Registered ANEWA Bell Computer CM coastline micro EXEGY iX systems Mendax MICROSYSTEMS PDE visionman Computer Systems

Adaptec Serial ATA 1420SA

Cost-Effective, High-Availability Serial ATA II RAID Controller

Superior performance and data protection for desktops, workstations and servers



SATA II, 4-port, PCI-X

- *4 Serial ATA (SATA), 3Gb/s ports*
- *Integrated RAID levels 0, 1, and 10*
- *Native Command Queuing (NCQ)*
- *48-bit LBA supports large capacity SATA drives*
- *Bootable array support*
- *Low-profile form factor*

Up to 46% faster than the competition; see how the Adaptec 1420SA was the clear winner in real-world testing. Read the benchmark at www.adaptec.com/go/1420SA

Choose Adaptec Trusted Storage solutions for controllers built with the expertise of 25 years of market leadership and the industry's most widely deployed RAID protection.

SERIAL ATA 1.5Gb/s RoHS Compliant 2002/95/EC

adaptec

Copyright 2006 Adaptec, Inc. All rights reserved. Adaptec, the Adaptec logo are trademarks of Adaptec, Inc., which may be registered in some jurisdictions. All other trademarks used are owned by their respective owners.

Cost Effective Storage Systems

The Most Versatile & Complete Rackmount Storage Solutions

EnhanceRAID 1U 4-Drive R4

- Supports JBOD or RAID 0, 1, 3, 5 & 6
- Host Options: SCSI, iSCSI, Multi-lane Port Multiplier, or USB2.0/Firewire800
- Scalable Up to 3TB with 750GB HDD



Starting from $495

EnhanceRAID 2U 6-Drive R6

- Supports JBOD or RAID 0, 1, 3, 5 & 6
- Host Options: U320 SCSI or iSCSI
- Optional Space for DVD or Tape Drive Configured as D2D or D2D2T
- Scalable Up to 4.5TB with 750GB HDD



Starting from $1,950

EnhanceRAID 2U 8-Drive R8

- Supports JBOD or RAID 0, 1, 3, 5 & 6
- Host Options: U320 SCSI or Multi-lane
- Scalable Up to 6TB with 750GB HDD



Starting from $650

EnhanceRAID 3U 14-Drive R14

- Supports RAID 0, 1, 3, 5, 6, 30 & 50
- Host Options: U320 SCSI
- Scalable Up to 10.5TB with 750GB HDD



Starting from $2,995

Enterprise RAID Storage Solutions

Award-Winning High-Performance & Reliability Storage Systems

ULTRASTOR 2U 8-Drive RS8

- Supports RAID 0, 1, 3, 5, 6, 30 & 50
- Host Options: U320 SCSI, iSCSI, or Fibre Channel
- Scalable Up to 6TB with 750GB HDD



Starting from $2,995

ULTRASTOR 3U 16-Drive RS16

- Supports RAID 0, 1, 3, 5 ,6, 30 & 50
- Host Options: U320 SCSI, iSCSI, or Fibre Channel
- Scalable Up to 12TB with 750GB HDD



Starting from $4,250

- Powered by Latest 64-Bit RAID Engine
- Remote Monitoring & Email Notificaiton
- Web GUI Easy Storage Management
- Microsoft Multipath I/O Certified
- Support Advanced RAID 6 Feature
- 3 Year Manufacturer Warranty

ENHANCE | TECHNOLOGY
INNOVATION IN HYBRID STORAGE TECHNOLOGIES
Phone: (562) 777-3488; Fax: (562) 777-3499
www.Processor.com/Enhance

Product Releases

PHYSICAL

Cabling

■ **Advantech** has introduced the ADAM-6541/ST, a 10/100 Base-TX Ethernet-to-100 Base-FX multimode St-type fiber-optic converter. It includes standard ST fiber-optic connectors as well as a standard shielded RJ-45 Ethernet connector. The new product supports fiber Ethernet connections over distances of up to 2km and is resistant to EMI, including lightning, making it ideal for applications such as wiring adjacent buildings together. The switch also includes full/half duplex flow control, autoconfigured MDI/MDI-X crossover connections, broadcast storm protection, +10 to 30 Vdc power input, surge protection (EFT) to 3,000 Vdc on the power input, embedded memory buffers on the fiber and wired ports, and DIN-rail, panel, and stackable mounting options. Pricing starts at $165.

COMMUNICATIONS

Network & Systems Management

■ **Apposite Technologies** launched Linktropy 4500 2.0, a WAN-emulation appliance. With version 2.0, the appliance now includes the Linktropy Scheduler, which can test the effects on network-based applications of varying WAN conditions. Linktropy Scheduler supports the alteration of emulation parameters over time and lets users designate as many as 10 sets of link conditions. Linktropy Scheduler aids in emulating various WAN conditions such as link outages, variable bandwidth links, route flapping, satellite rain fade and attenuation, and wireless interference. It also includes new features, such as packet reordering and packet duplication. Current Linktropy 4500 appliances can upgrade to version 2.0 at no cost.

• • • • •

■ **Netcordia** announced NetMRI Campus, a new series of NetMRI modules targeted at midsized businesses that need to manage their networks cost-effectively. The new NetMRI Campus 50, 100, and 150 serve organizations with fewer than 50 routers and switches up to those with as many as 150 routers and switches. NetMRI Campus provides network managers with a single tool that investigates configuration and performance problems across all routers and switches, generates custom best practices, and can help fix problems discovered. NetMRI enables IT personnel to make changes across multiple platforms and multiple vendors, including Cisco, Juniper, Foundry, Extreme, Avaya, Nortel, HP, and Alcatel.

Security

■ **Akonix** introduced a new security appliance for monitoring Skype use. The L7 Skype Manager 2.0 lets companies create and enforce usage policies. The appliance connects at egress points and monitors Skype transmissions. The appliance can log and block unauthorized traffic, and it can also flag attempts to complete unauthorized Skype communications. L7 Skype Manager 2.0 supports up to 1,000 seats for $3,495. A 10,000-seat package is available for $4,995.

• • • • •

■ **Blue Ridge Networks** released RemoteLink, a device that can create a secure bridge across various connection types, such as dial-up, T1, DSL, cable, wireless, satellite, frame-relay, and MPLS. It supports Ethernet devices and secure data, video, and VoIP traffic. Blue Ridge Networks is targeting the device at banks and government agencies that have ad-hoc field offices, as well as healthcare providers, among others. According to Blue Ridge Networks, the device can help businesses meet DoD PKI, HSPD-12, HIPAA, and other security requirements. The device does not require end-user configuration.

• • • • •

■ Two innovations make **Fortinet's** new FortiGate-3600A UTM system worth a look. The new FortiASIC Content Processor increases performance by up to 50%, the company claims. Also, the FortiGate-3600A supports standards-based AMC network adapter modules for future expansion with 10Gbps Ethernet and new WLAN technologies.

• • • • •

■ There are nine new Secure Services Gateway UTM appliances in three different product lines from **Juniper**. The new SSG 5 and SSG 20 lines are intended for branch offices and telecommuters, supporting speeds of 160Mbps through their stateful firewalls and 40Mbps via IPSec VPN. Meanwhile, the SSG 140 series targets entire businesses as well as medium-sized branch offices with 350Mbps firewall and 100Mbps IPSec VPN throughput.

• • • • •

■ **ZyXEL Communications** released the ZyWALL 1050, which is a single-box security device that offers a firewall and VPN concentrator for SMEs. It offers 1,000 VPN tunnels, supports 500 users, 15 WAN connections, and has five Gigabit ports.

Go to Page 17

Easily Control Multiple Computers



AIS KVM Monitors Offer Cost-Effective & Versatile Design

by Joe Lazzaro

• • •

IF YOU NEED TO CONTROL multiple computers for a data center, telecom, test facility, or for other applications, a KVM (Keyboard, Video, Mouse) switch may be just what the doctor ordered. In brief, a KVM switch lets you use one keyboard, mouse, and monitor to operate one or more PCs. While KVM switches let you connect to multiple computers, only one at a time can be operated using the KVM switch. Incidentally, some KVM switches also let you share speakers and USB devices with multiple PCs.

The new LDS line of 1U RackMount KVM Console LCD Monitors from AIS (American Industrial Systems) are available in 1-, 8-, and 16-port configurations and in 15-, 17-, and 19-inch screen sizes. The units feature an 88-key keyboard with a 17-key numeric keypad and touchpad mouse integrated into a slide-out drawer. The LDS systems support AT/XT, Sun, PS/2, Unix, and Mac OS; are readily installed via plug-and-play technology; and are built using smart cable management design.

The units feature LCD TFT active-matrix color panel monitors that are industrial-grade. You can adjust the monitors' brightness, color, and contrast and even the position and shape of the display using on-screen displays. The monitors also include adjustable hinges, letting you change the viewing angle. They include protective glass, making them appropriate for use in many types of environments, and also include an industrial power supply, front-panel controls, and a standard D-sub 15-pin VGA connector in a 1U flip-up display enclosure.

In order to minimize interference, the monitor housing has EMI shielding around it. Both the keyboard and mouse are built to military specifications, are resistant to shock and vibration, and employ PS/2-style connectors.

The monitors also feature a space-saving design with an ultra-low 1U flip-up display enclosure and a mechanical design to maximize rack-mountable space. The systems are provided with a mounting kit and sliding rails for installation in 19-inch cabinets.

SNAPSHOT

AIS LDS KVM Console LCD Monitors

LDS210D starts at $999

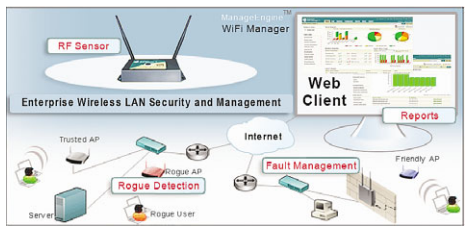
Provide integrated keyboard, touchpad mouse, hardware built to military specifications to withstand shock and vibration, and protective glass for semi-hostile environments

www.Processor.com/AIS10

According to the company, the main competition for the $1,299 AIS 1U RackMount KVM Console LCD Monitor comes from the Titan 17-inch LCD Console 1U Rackmount 8-port KVM switch from Belkin (www.belkin.com), the 1U 17-inch Flat Panel 8-port Console Kit from IBM (www.ibm.com), and the 8-port 17-inch LCD Slideaway Console Drawer from Aten Technology (www.aten-usa.com).

Network & Systems Mgmt.
www.Processor.com/AdventNet17

JULY 28, 2006



ManageEngine WiFi Manager 4.5 - Integrated Wireless LAN Management & Security Software
- Enterprise Edition-Support for Large Scale Wireless LAN
- Supports More Than 80 Models of Access Points
- Fault Management Capabilities
- Rogue AP Detection and Blocking
- Configuration of Access Points (Bulk &Template-Based)

AdventNet Excellence Matters

5200 Franklin Drive, Suite 115
Pleasanton, CA 94588
Phone: (888) 720-9500
Fax: (925) 924-9600

Network & Systems Mgmt.
www.Processor.com/AVTECH3

AUGUST 25, 2006

Starts at $495



PageR *Enterprise*
Network-Wide Monitoring Made Easy!



PageR *Enterprise* network-wide server, device, and event monitor immediately notifies IT managers when important conditions occur. Monitor any OS server, applications, services, disks, file, device, bandwidth, power, TCP/IP, SNMP, Web site, and much more. Web interface, advanced alerting, auto-corrective action, scalable. Environment monitor add-ons available.

AVTECH Software

221 Third Street
Newport, RI 02840
Phone: (401) 847-6700
Fax: (401) 847-6701

Storage
www.Processor.com/StorageCraft3

AUGUST 11, 2006

SHADOWPROTECT™ IT EDITION
Complete System and Data Protection

StorageCraft ShadowProtect IT Edition
Provides IT Professionals a bootable Windows environment to create and restore compressed and encrypted backup images of both servers and PCs. Restore individual files or folders, update backup images, or complete bare metal recovery in minutes—without the need to install software.

STORAGECRAFT Technology Corp.

180 West Election Road, Suite 230
Draper, UT 84020
Phone: (801) 545-4700
Fax: (801) 545-4705

Product Releases

Continued from Page 16

The device has a User-Aware policy engine that lets IT departments define user-specific network access permissions. The device also lets administrators set permissions for user ID, user group, network quota, and time of access. It performs Layer 7 packet inspection and can block malicious files. It also automatically downloads and installs up-to-date IDP signatures and patterns from ZyXEL. Other ZyWALL 1050 features include customizable security zones, bandwidth management, VoIP security via a SIP/H.323 ALG feature, and content filtering. The ZyWALL 1050 is available for $3,999.99.

Storage Networking

■ **Emulex** released the Emulex IOP 502M, IOC 504, and IOP 504, which are storage processor products that support Fibre Channel, SATA, and SAS. They use technology from the Intel IOP34x storage family. The IOP 502M is a single-chip Fibre Channel and SAS I/O processor that offers front-end Fibre Channel SAN connectivity and back-end disk connectivity. It has an Intel XScale processor. The Emulex IOC 504 has SLI and offers Fibre Channel to enterprise class FICON connectivity. The Emulex IOP 504 is a Fibre Channel I/O processor, and it has front-end SAN connectivity for FICON solutions or back-end storage systems for disk connection. It has a dedicated application processing processor.

Switch

■ **Electro Standards Laboratories** released the Model 7432 HSSI Single Port Normal/Loopback Switch with RTS Remote, a switch designed to loop back key signals within a single HSSI port interface. The HSSI interface uses a 50-pin micro-D type connector and offers an Automatic Mode that is based on the presence or absence of the RTS signal on the DB9 port. If the operator overrides the Automatic Mode, he or she can alternate between Normal and Loopback positions regardless of the RTS signal on the DB9 port. LEDs indicate switch position and power status, and the position and connection can be maintained during a power loss.

END NODES

Monitors & Displays

■ **Elo TouchSystems** announced the 1529L 15-inch LCD multifunction touchmonitor with APR (acoustic pulse recognition) touch technology. A touch at each position on the glass generates a unique sound, and transducers attached to the edges of the glass pick up the touch sound. The sound is then compared to a list of prerecorded sounds for every position on the glass. The cursor position also moves to the touch location. The 1529L includes options for an integrated three-track magnetic stripe reader, 2 x 20 vacuum fluorescent rear-facing customer screen, and a biometric fingerprint recognition device. All optional features are available with a choice of Elo's IntelliTouch surface wave, AccuTouch five-wire resistive, CarrollTouch infrared, surface capacitive, and APR technology.

Printer

■ **Lanier** launched the LD435c and the LD445c, MFPs that produce 35 and 45ppm, respectively, in black and white. The MFPs are targeted at midvolume workgroups. The printers support 600dpi resolution and have a color engine that supports the equivalent of 2,400 x 600dpi, with PxP toner. The printers support color and monochrome copying as well as scanning and network printing. Optional features include document finishers and analog and network faxing support. The scanner supports scan-to-email and FTP up to 63ppm and 58ppm in monochrome and color, respectively.

Lanier also released a digital duplicator, the LDD250. The LDD250 supports duplication at 135ppm for monochrome and spot color documents. Lanier is targeting it at CRDs (central reprographics departments). It offers 400 x 400dpi and has a print pressure control system that can automatically compensate for changes in humidity, print speed, and temperature. The system includes a print controller for network connectivity and supports NCR paper, among other paper stocks.

• • • • •

■ In response to changing U.S. federal government security standards, **Lexmark** has introduced an authentication solution for laser MFPs that gives governmental agencies an option for enhanced network security. The solution locks MFPs so that users can't copy, fax, scan, print, or start workflow processes from a device without inserting a CAC (common access card) first to get authentication. By requiring verification and security classifications, the CAC solution ensures that only authorized employees have access to a network via a MFP. Lexmark states it's the first printer manufacturer to offer this level of security for MFPs for the federal government, and

Go to Page 18

Greater Data Capacity & Improved Recovery

D-Link xStack Storage SAN Arrays Offer Affordable Backup Options

by Scott Koegler

• • •

Organizations of every size are coping with increased data storage requirements. D-Link's latest series of iSCSI products includes a range of storage appliances aimed at small to medium-sized enterprises needing to provide additional manageable and expandable storage systems.

The D-Link xStack Storage iSCSI 3000 product line includes its low-end DSN-3200. But even as an entry-level product, the DSN-3200 includes eight 1Gbps Ethernet ports and can house up to 15 SATA II drives, delivering as much as 11TB of storage capacity. The company's DSN-3400 caps the line with increased bandwidth of 10Gb, giving the unit higher throughput than a 4Gbps Fibre Channel system.

iSCSI connects to its hosts using Ethernet technology rather than the more expensive Fibre Channel connections that prevail in the world of high-end storage systems. This approach allows administrators to integrate xStack systems into existing Ethernet environments using technology and connections they are familiar with, avoiding the expense and learning curve of Fibre Channel technology. D-Link's 10Gb capacity is the first Ethernet implementation to deliver higher throughput than Fibre Channel systems, meaning there is no longer a performance penalty to implementing the iSCSI solution. The other factor contributing to this increased performance is D-Link's "system-on-a-chip" technology that puts iSCSI in hardware rather than a slower software implementation.



SnapShot

D-Link xStack Storage iSCSI 3000 Series

DSN-3000 series starts at $5,999 for the DSN-3200; the DSN-3400, scheduled to ship later this year, will sell for $14,999

Presents an opportunity for smaller businesses to incorporate state-of-the-art enterprise-class storage systems at a reasonable price

www.Processor.com/DSN-3200

Management and configuration functions are built into the DSN-3000 systems with the IP-SAN Device Manager that includes cache management and write control features that maximize the system's performance. Drives can be configured in a variety of RAID levels, including 0, 1, 1+0, and 5, or simply assigned as JBOD drives as dictated by the environment.

To ease the never-ending task of managing volume capacity and allocation, the systems include a storage management software stack with virtualization features that simplify migrating and expanding volume capacities.

Additional SATA drives are available in capacities ranging from 400 to 750GB and are priced from $499.99 to $1,149.99.

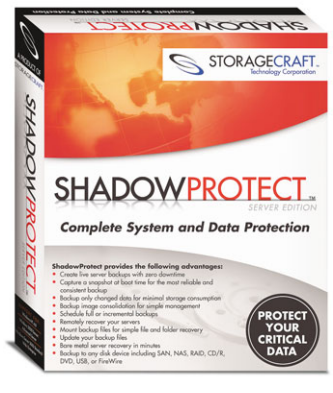
Competitors to D-Link's 3000 series include HP's MSA1510i series (www.hp.com) and Dell/EMC's AX150i systems (www.dell.com). Research firm IDC of Framingham, Mass., sees the SME iSCSI systems market segment heating up significantly next year.

STORAGE JULY 21, 2006

StorageCraft ShadowProtect Ends Backup Headaches

Offers Simple View To Restore & Update Files & Folders

StorageCraft ShadowProtect Server Edition will help end your backup headaches. StorageCraft ShadowProtect creates an exact online backup of your entire system, including the operating system, applications, configuration settings, and critical data, with zero downtime. ShadowProtect provides a simple view to restore or update files and folders to your existing backup image files. Save backups to any disk device, including USB, FireWire, attached storage devices such as NAS and SAN, and any network location.



ShadowProtect Advantages:

- Create online server backups with zero downtime
- Reduce or eliminate backup windows
- Restore files in minutes, not hours
- Reduce backup complexity while increasing backup reliability
- Back up only changed data for minimal storage consumption
- Backup image consolidation for simple management
- Schedule full or incremental backups
- Recover your servers remotely
- Mount point-in-time backups for simple file and folder recovery
- Update point-in-time backups
- Bare-metal server recovery in minutes

StorageCraft ShadowProtect

Creates an online backup of your entire system for zero downtime

(801) 545-4700

www.processor.com/storagecraft

STORAGECRAFT Technology Corp.

Datacenter Protection

for only 68 cents/day



Network downtime affects more than just the IT department, and is more than just a disturbance.

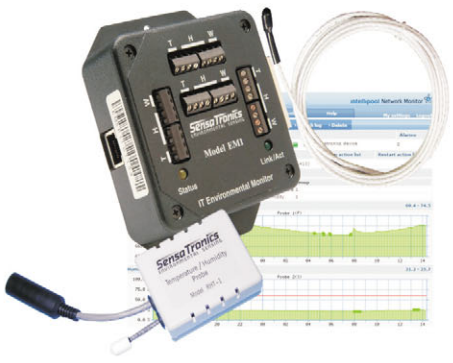
Have you actually thought about what happens if the acceptable temperature within the server room or datacenter is too high for too long?

Servers become faulty
Data leakage
Loss of productivity

Extra work for IT
Reinstallation of applications
Possibly your job

A one time investment in the Sensatronics Monitor is invaluable to protecting your datacenter and your peace of mind.

For less than $750...



The EM1 combined with a temperature/humidity probe, wetness probe and INM monitoring software is both affordable and highly suited to any IT environment. The solution is easy to setup and configure, and only costs
68 CENTS PER DAY!

Is 68 cents worth staying connected to your IT assets?



FREE STUFF!

*Mention or use coupon code **proc922** online to receive:*

FREE Shipping on all orders **&** ***FREE Upgrade to our 3 yr. warranty***

28% of Fortune 100 companies already know WE SAVE DATACENTERS!

Contact us today!

1-866-599-5059
www.sensatronics.com
www.Processor.com/Sensatronics

SensaTronics
ENVIRONMENTAL SENSING
"You saved my datacenter"

** 68 cents per day based upon proper installation of an EM1, temp/rh probe, wetness probe and 2-object INM license depreciated over the life of the extended warranty (3 years).*

Product Releases

Continued from Page 17

the authentication solution can be applied to other federal agencies, as well.

• • • • •

■ **Ricoh** launched two new multifunction devices, the Aficio MP C3500 and C4500, as part of its midrange color product line of multifunction products. Ricoh also recently announced the release of the MP C2500 and C3000 devices. The C3500 has a manufacture-rated 35ppm speed for monochrome and color copies. The C4500 has a 45ppm rated speed for monochrome copies and 40ppm rated speed for color. Each MFP model offers an optional DOSS (Data Overwrite Security System), which automatically overwrites latent data on the system's hard drive after scans, copies, faxes, and prints to prevent data theft. The C3500 starts at $13,995, and the C4500 starts at $17,250.

Server Appliance

■ **Covast** and **Network Engines** announced the Covast B2B Appliance for RealTime Networks. Covast gives large supply chain organizations a cost-effective and easy way to facilitate B2B integration with trading partners of all sizes. The Covast B2B Appliance for RealTime Networks comes preinstalled with Microsoft BizTalk Server, Microsoft Windows Server, and Covast B2B Appliance Configuration and Deployment Engine. Using settings stored on a real-time network, the Covast B2B Appliance for RealTime Networks configures itself automatically. The appliance also includes an application-layer firewall, VPN, and Web cache functionality to maximize protection for core Microsoft infrastructure applications.

Storage

■ **ATTO Technology** launched a series of SAS PCIe RAID adapters that incorporate Intel's 800MHz PCIe IOP348 I/O processors and Intel XScale technology. These new products, the ATTO ExpressSAS RAID Adapters, offer SAS/SATA II connectivity at speeds of up to 3Gbps per port. They also provide user-selectable port configurations. The adapters also include hot swap, hot spares, online capacity expansion, battery backup, and optimized disk utilization for SAS drives and SATA II drives. The products include the ATTO ExpressSAS R348 and the ATTO ExpressSAS R380, both of which support RAID 0, 1, 5, 6, 10, 50, and 60 and include DVRAID.

• • • • •

■ **Buffalo Technology** has announced the DriveStation Duo USB 2.0/FireWire External Hard Drive in capacities of 500GB (HD-W500IU2/R1), 800GB (HD-W800IU2/R1), 1TB (HD-W1.0TIU2/R1), and 1.5TB (HD-W1.5TIU2/R1). The DriveStation Duo uses configurable RAID 1 with mirroring and comes with Windows RAID Utility to change RAID modes. Two 7,200rpm SATA drives are included, along with Buffalo Technology's SecureLockWare technology, which encrypts and protects data. Additionally, the device includes Auto Setup technology for installation without needing drivers and an automatic on/off powering feature. Prices are $249 for the 500GB option, $449 for the 800GB and 1TB options, and $999 for the 1.5TB option.

• • • • •

■ **Iomega** announced its REV SBS Data Protection Solution for use with both Iomega REV 70GB and 35GB Backup Drives. The Iomega SBS Data Protection Solution is an integrated set of tools that enables easy data backup, disaster recovery, and protection from computer viruses for Microsoft SBS (Small Business Server) data. The SBS Data Protection Solution comes with two removable REV disks (either 35GB or 70GB), CA BrightStor ARCserve Backup for Microsoft Small Business Server, and CA eTrust Antivirus.

Iomega also announced that its 70GB REV removable cartridge drive is now available with a SATA interface. With a 30-year archival life, an estimated durability of 1 million rewrites, and transfer speeds of up to 30MBps, the hard disk-based REV 70GB SATA is a compelling choice for business backups. The drive is available with one cartridge and EMC Retrospect Express backup software for $579.99, or there's also a five-disk Server

Keep Older Data Readily Available

PowerFile A3 Built To Replace Tape

by Daniel P. Dern

• • •

MOST COMPANIES have a growing volume of files that are "fixed" (not going to be changed), which they may or may not want to access in the future. But when somebody does want to access a piece of this data, he or she wants it "near-line," accessible quickly and easily within seconds or minutes, not hours or days.

That's too fast for tapes, but the cost of ownership—power, cooling, administration, and periodic replacement—for disk drives is still high. One new option is the A3 (Active Archive Appliance) from PowerFile. The A3 uses a virtualized array of WORM-based DVD media. The A3's file management software creates storage volumes that appear on the network as a standard network volume.

PowerFile's approach, says Greg Schulz, founder and senior analyst at the Storage IO Group, "fits right in the middle of the market, for companies needing the middle ground between disk and tape for longer-term archiving, with the option of media removability."

Viz Media, an international multimedia company, has been using a PowerFile A3. "We need to keep access to our older titles; we can't just dump them to tape,"

Product Releases

Backup and Disaster Recovery Kit with CA BrightStor ArcServe Backup OEM edition software for $829.

. . . . .

■ 10Gbps Ethernet is now fully supported by **Network Appliance's** FAS3000 and FAS6000 storage platforms. The fabric-attached storage lines now support 10Gbps NICs with the release of Data ONTAP 7.2. NetApp has tested compatibility with Foundry and Cisco switches, as well as with iSCSI software initiators for Windows, Solaris, Red Hat, and SuSE.

. . . . .

■ **Network Instruments** has increased the drive capacity of its GigaStor storage appliance to 12TB. With the increase, Network Instruments GigaStor Probe can now capture terabytes of traffic to hard drive for analysis via various full-duplex network topologies, including WAN, LAN, Fibre Channel, wireless, gigabit, and 10GbE. The GigaStor appliance lets companies store days', weeks', and months' worth of packet-level data in order to do historical analysis, as well as to analyze network performance, mission-critical connections, and other issues, using GigaStor's time-based navigation tool. Additionally, Network Instruments has announced a StorMor promotion, which lets users nearly double hard drive capacity of any new GigaStor if ordered before Dec. 15.

Components

■ **Intel** has introduced a new family of storage processors that it's aiming at SMEs and large enterprises. The IOP34x family integrates advanced data protection, hardware-based RAID 5/6, multiple high-performance Intel XScale processor cores, and high-speed SCSI and SATA support in processors and controllers for server-direct attached and external storage products. According to Intel, its new product family brings SAS RAID into the mainstream, offering businesses protection, performance, and power-efficiency features. The family includes the single-core IOP341 I/O processor and dual-core Intel IOP342 I/O processor. Intel also announced the Intel IOC340 I/O Controller, which shares a common SAS/SATA control unit with the IOP348. Pricing ranges from $53 to $152.

SOFTWARE

Application & Web Development

■ **Borland** unveiled Borland LQM (Lifecycle Quality Management), a service that ensures quality is built into software, tested, and traced throughout the software delivery life cycle. The Borland LQM service links business requirements to code to testing priorities in an automated and traceable method. The traceable connection helps improve the communication between business, development, and QA teams to produce code delivered on time, with minimal defects. Borland LQM supports and aligns requirements definition, test management, design analysis, defect prevention, automated testing, scalability testing, defect tracking, and version control.

Business Productivity

■ **SearchInform Technologies** introduced SearchInform 3.0, featuring significantly enhanced indexing and information search algorithms. Main features of SearchInform 3.0 include phrase search with due consideration to stemming and thesaurus, new SoftInform Search Technology, high indexing speed, a query caching system, and support for more than 60 text formats, electronic messages, MP3s, and logs of MSN and ICQ instant messaging programs.

Network & Systems Management

■ **CA** announced version 7.1 of CA Harvest Change Manager, a software program that tracks software configuration management throughout the application development life cycle. Harvest Change Manager 7.1 features Microsoft SQL Server-based data store platforms and provides IBM System i support. Microsoft .NET 2005- and Eclipse-based tools are supported, and CA Harvest Change Manager can integrate with Unicenter Software Delivery to automate deployment of applications. Enhanced LDAP

Go to Page 20



SNAPSHOT

PowerFile Active Archive Appliance

Starts at $15,900 for 3.4TB of usable archive capacity, with 1.7TB expansion kits available for $5,900

Uses optical media to provide a low-energy, lower-cost alternative to tape or disk for keeping archived files available "near-line"

www.Processor.com/PowerFile1

says Dean Blackburn, director of IT at Viz. "The PowerFile A3 lets us free up space on our server while leaving the older data accessible."

PowerFile can currently put up to 18 200-DVD libraries—3,600 DVDs—on the network as a single drive, for a total capacity (using today's 8.5GB dual-layer media) of about 30.6TB, according to Jonathan Buckley, vice president of marketing at PowerFile. "We expect to scale up to about 100TB per instance in a year and are shooting for 1PB [petabyte] (1,000TB) within two years."

Currently, no other companies are making comparable optical library devices for near-line archival storage, according to both PowerFile's Buckley and Storage IO's Schulz. "We don't consider disk arrays to be competition; we sit behind them," says Buckley.

Compared to the total cost of ownership against midrange NAS solutions, "We're about 1/10 to 1/20 the cost for archiving over five years because of power and administrative savings. A3 systems require an average of 5% of the total power of a disk system," Buckley says. "Also, unlike disks or tapes, optical media doesn't require replacing every few years, especially since PowerFile requires customers use only top-quality media, and the disks are sealed away from sunlight or handling, which are major causes of media problems."

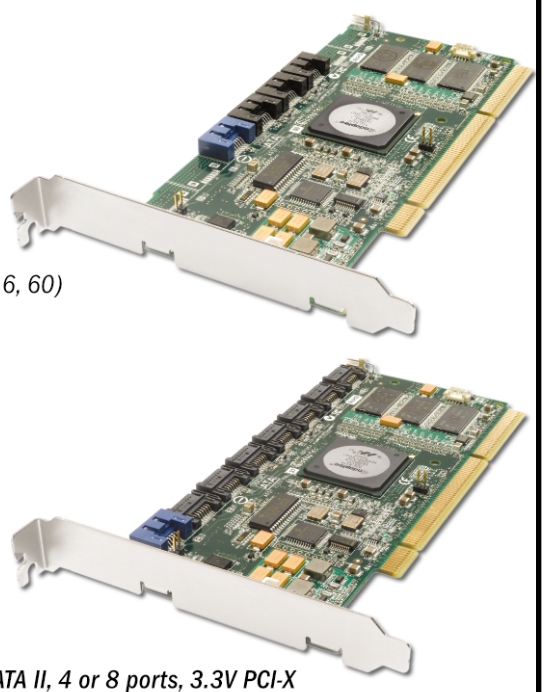
Adaptec Serial ATA II RAID 2420SA / 2820SA

Cost-Effective, High-Availability SATA II RAID Controllers

With RAID 5, 6 and 5EE

Highest Performance Serial ATA II (SATA II) RAID

- *4 ports (Adaptec 2420SA) or 8 ports (Adaptec 2820SA)*
- *Standard RAID levels 0, 1, 5, 10, 50*
- *Also includes the Adaptec Advanced Data Protection Suite*
  - *Dual Drive Failure Protection (RAID 6, 60)*
  - *Hot Space (RAID 5EE)*
  - *Striped Mirror (RAID 1E)*
  - *Copyback Hot Spare*
  - *Snapshot Backup (optional)*
- *Optional battery backup module*
- *Reduction of Hazardous Substances (RoHS) compliant*



SATA II, 4 or 8 ports, 3.3V PCI-X

Adaptec SATA II Controllers deliver the highest performance, leaving the competition in the dust. Read the benchmark at www.adaptec.com/go/2420sa

Choose Adaptec Trusted Storage solutions for controllers built with the expertise of 25 years of market leadership and the industry's most widely deployed RAID protection.

adaptec

Copyright 2006 Adaptec, Inc. All rights reserved. Adaptec, the Adaptec logo are trademarks of Adaptec, Inc., which may be registered in some jurisdictions. All other trademarks used are owned by their respective owners.

ePANELpro
The Industrial Panel e-store

ePANELpro specializes in high-quality display from Flat Panel Displays, Panel PC to Industrial Display. We customize display mounting and housing within a variety of different environments.



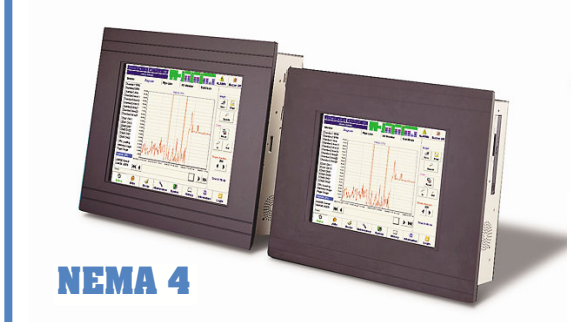
Digital Signage

DIGITAL SIGNAGE is an integrated platform that combines the flat panel display with an image/video playing device.

- **Provide digital media playback**
- **Present video clips, pictures & scroll texts**
- **Schedule playback at specific time**
- **TV function is available by adding optional device**
- **Be able to network and manage contents**
- **Playlist log is recorded in the managing server for advertising billing**

ePANELpro carries digital signage products from 7" up to 42", with basic solution to advanced network models.





NEMA 4

12" and 15" Industrial Panel PC



(1-16 ports)
15" - 19" 1U KVM

ePANELpro
The Industrial Panel e-store

TEL: 1-888-WE-PANEL
FAX: 1-510-403-3184
Email: Sales@ePANELpro.com

Product Releases

Continued from Page 19

support allows user authentication from an external source, and users can remotely synchronize data for collaborative use in Unix directories. The CA Harvest Remote Transport Option extends CA Harvest to OpenVMS and Tandem to manage remote machines that run Windows, Unix, and Linux.

• • • • •

■ **ExclamationSoft** says that its WebWatchBot 5.0 software offers continuous monitoring of Windows and Unix servers, workstations, and devices for disk space, memory and CPU usage, services, processes and events, hardware, and many other aspects of site and server operation. Additionally, WebWatchBot 5.0 provides performance and problem alerts.

• • • • •

■ **Network Physics** released NetSensory Solution Insight, an interface for use with F5's WANJet that lets users identify where WANJet appliances are needed. Targeted toward resellers, integrators, and network managers, the package integrates 50 performance and utilization metrics with WANJet link, utilization, and status information. The NetSensory appliance installs via a SPAN/mirror port or tap and can manage multiple WANJet implementations. According to Network Physics, channel partners can use the package to demonstrate WANJet acceleration and optimization benefits.

Security

■ **PatchLink** announced PatchLink Update 6.3, designed for rapid security patch management and maximum endpoint coverage. New features and benefits include the ability to deploy patches faster with overall performance improvements, the ability to detect applicable patches in seconds per machine, and reduced server load and improved performance with new agent-side data processing and database query results caching. PatchLink Update 6.3 also has additional bandwidth throttling options, RSA BSAFE Encryption, support for SQL Server 2005, and support for Windows 64-bit operating systems, Novell SuSE Linux, and Macintosh on Intel.

Storage

■ **EMC** unveiled EMC Smarts ADM (Application Discovery Manager) 5.0, software that allows enterprises to view network and storage resources in distributed business applications. Smarts ADM 5.0 uses a real-time dependency catalog to minimize change-induced service outages and allows users to detect, log, and report software and hardware configuration changes, which users can then compare on a server-to-server basis. The real-time configuration management database allows users to manage the impact of changes and infrastructure incidents across multiple data centers. EMC Smarts ADM 5.0 also features reconciliation, federation, application analytics, and new dashboards.

• • • • •

■ **NTP Software** has announced a new version of its NTP Software Storage M&A for NAS, NetApp Edition software, which provides executives and storage administrators a method for deciphering what's happening in their work environments through such tools as the NTP Software Storage Analysis Engine. The engine uses heuristics, trend analysis, and spot analysis to detail what is important in the working environment. The software also includes Snapshots support to help administrators better understand their storage environments, as well as report and project on storage space. NTP Software Storage M&A for NAS, NetApp Edition starts at $9,995.

• • • • •

■ **Sherpa Software** introduced File Attender for Notes version 6.3. File Attender provides legal teams, human resource departments, and network administrators with a way to secure business information while centrally controlling files and attachments. File Attender can archive files from a user's or Domino server's hard drive to a centralized location based on criteria such as file name, type, and date. Archived files can reside on any random access storage that the user or server can address: file server, WORM, SANS, NAS, JukeBox, etc. A shortcut to the archived file provides access to the document.

SERVICES

Data Center Services

■ **Emerson Network Power** announced the Liebert Battery Monitoring Service, designed to maximize the availability and performance of battery systems. Liebert Battery Monitoring Service uses onsite and remote preventive maintenance to identify problems before they occur. If a problem is developing, Emerson Network Power Customer Engineers take corrective action before it turns into a serious issue. If a battery fails, customers will be informed of the problem and what Emerson Network Power is doing to fix it. The Monitoring Service diagnoses cell voltage, overall string voltage, current, and temperature; the data is then archived and trended to help identify anomalies before the problems lead to battery failure.

Messaging & Groupware

■ **AppRiver** is introducing unlimited mailbox storage through its Microsoft Exchange Hosting with Shoreline service. AppRiver's hosting facilities are SAS 70 level II-audited, and AppRiver ensures that Microsoft-certified staff is onsite for tech support. The Shoreline Control Panel provides tools for configuring Outlook accounts and settings through a Web-based interface. AppRiver's Microsoft Exchange Hosting includes SecureTide antispam and antivirus protection and costs $12.95 per mailbox per month.

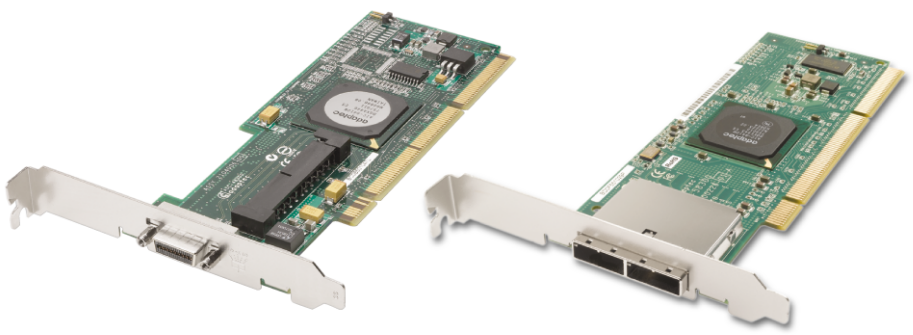
Storage

■ **AT&T** and **Arsenal Digital** have launched a new online backup service, available to small businesses. AT&T Online Vault stores data remotely, is automated and secure, and operates in the background, automatically updating existing files anytime it detects that a change has been made. Online Vault also compresses and encrypts all of the files in the Documents And Settings folders and can be configured to exclude certain types of files from the automatic backup routine. Updates are preserved on AT&T's servers for up to 30 days, so files are retrievable even after deletion from a user's system. AT&T Online Vault costs $5.95 per month for 2GB of storage. Each additional gigabyte costs $2 per month, with a limit of $17.95 per month.

Adaptec Serial Attached SCSI 48300/58300

Highly Scalable Unified Serial™ Controllers — Use SAS and SATA Drives

Performance, scalability, and data protection for servers and workstations



Serial Attached SCSI (SAS), 8-port, PCI-X

- *Connects to both SAS and Serial ATA (SATA) disk drives*
- *4 internal and 4 external ports (Adaptec 48300) or 8 external ports (Adaptec 58300)*
- *Scalable to 128 SAS or SATA devices*
- *Integrated RAID levels 0, 1, and 10*
- *Bootable array support*
- *48-bit LBA support*

Discover all the advantages of using Unified Serial controllers to create simplified storage solutions that leverage both SAS and SATA drives. Read the white paper at www.adaptec.com/go/unify3

Choose Adaptec Trusted Storage solutions for controllers built with the expertise of 25 years of market leadership and the industry's most widely deployed RAID protection.

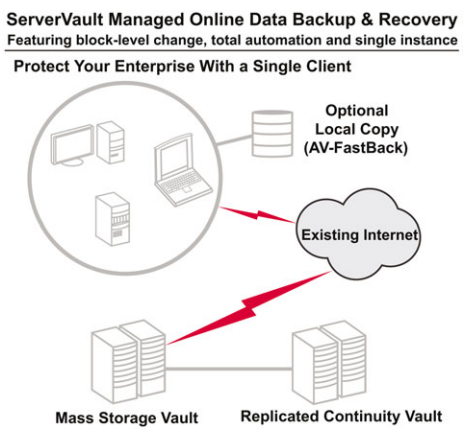
Serial ATA 1.5Gb/s · Serial Attached SCSI · RoHS Compliant 2002/95/EC · Unified Serial Architecture · adaptec®

Copyright 2006 Adaptec, Inc. All rights reserved. Adaptec, the Adaptec logo are trademarks of Adaptec, Inc., which may be registered in some jurisdictions. All other trademarks used are owned by their respective owners.

STORAGE JULY 21, 2006

AmeriVault Managed Online Backup Service Better Than Ever

ServerVault Offers Backup Without The Use Of Agents Or Plug-Ins



SERVERVAULT IS AmeriVault's premier D2D managed backup service that features enterprise backup without the use of agents or plug-ins. ServerVault delivers trusted data protection that automatically synchronizes data backup and offsite storage by simply installing a client and leveraging existing Internet connectivity.

Still using tape?

Imagine backups happening in 1/10th the time, automatically secured in a Tier 1 data center, compressed, and encrypted, ready for immediate restore.

What about large restores?

AmeriVault deploys portable Mobile Vaults—disk devices shipped with large volumes of compressed data. They are highly reliable and plug right into a network for disk-to-disk recovery. Or you may also choose to store a local D2D copy via AV-FastBack for LAN-speed restores or bare-metal recoveries.

Key Advantages & Business Benefits

- Immediate online restores save time for IT staff and end users
- Central management—consolidate and standardize internal and remote backup
- Automatic upgrades and scaling—we do the back end, you focus on other plans
- Wide OS and DB support
- Expert tech support helps optimize service and expedites recovery
- Assured recovery via digital signature technology that verifies data integrity

About AmeriVault

- Nearly a decade in managed D2D service
- Replicated storage vaults
- SAS 70 certified
- Operating in five Tier-1 data centers
- Protecting data from 43 U.S. states

AmeriVault ServerVault

Automatically synchronizes backup and offsite storage via existing Internet connectivity

(781) 890-8690

www.processor.com/ServerVault

AmeriVault® Excellence in Data Protection™

Cool High-Density Device Areas



Emerson Liebert XDH Row Cooler Targets Hot Spots

by Cynthia Lazzaro

• • •

To help supplement, or in some cases replace, the older data center cooling options traditionally used, Emerson Network Power has released the Liebert XDH, a horizontal row cooler. Liebert is a subsidiary of Emerson Power, which has designed the Liebert XDH to efficiently and economically cool high-heat, high-density equipment rows.

A single Liebert XDH is capable of cooling a 30kW rack and has flexible piping to allow it to be repositioned without disrupting the cooling process. The Liebert XDH uses a hot-aisle, cold-aisle model where air is drawn in from the warm aisle to the cold and is circulated through the XDH using a waterless, pumped refrigerant. Because the XDH is modular, it can be placed close to hotter devices where the hot air is taken in by the XDH, and after the air is cooled, it is released near the racked devices' air inlets where the cooler air is drawn into the equipment.

By using a waterless, pumped refrigerant, Emerson claims it gets more efficient cooling results than water-based systems and uses about 30% less power. The use of the refrigerant eliminates the potential for water damage in the event of leaks. If there is a leak, the refrigerant turns to gas upon exposure to air, preventing water damage and sensitive equipment damage.

There are two models of the Liebert XDH. The XDH20 uses 500 watts of power and has a nominal output capacity of 22kW. The XDH32 uses 1,200 watts and has an output of about 30kW and also has dual power cords for fault-tolerant uptime and dual refrigerant circuits.

Competition for the Liebert XDH includes products from Knuerr, a German company that specializes in high-density cooling solutions. Knuerr's CoolTherm product line has devices that will cool to capacities of between 10 and 35kW; however, they are at this point still a water-based cooling system (www.knuerr.com).

Another competitor is AirPac, which has a series of portable air conditioners in a variety of sizes and densities (www.airpacinc.com). Although AirPac isn't offering what is considered a row cooling product, its portable products can fit into tight spots, providing cooling where necessary. But like typical air conditioners, there is a drip pan for condensation, which may impact its desirability for the data center. Other competitors offering portable air conditioners include Atlas Sales and Rentals (www.atlassales.com) and MovinCool (www.movincool.com).

SnapShot

Emerson Liebert XDH

Starts at $4,400

Advanced cooling system gets cold air to even tightly packed rack-mounted devices

www.Processor.com/Liebert

Remote PC Support Via The Internet

Manage & Support Multiple Computers Simultaneously



by Julie Sartain

• • •

In the past, remote PC support and management was provided to users on an individual, one-on-one basis using PC access tools such as GoToMyPC, Symantec's pcAnywhere, and similar products. Troubleshooting a series of computers or an entire network and/or maintaining multiple systems was a long and cumbersome process. Imagine having to set up, install, update, manage, and log support sessions with a remote access tool that can only communicate with one PC at a time.

No more. Now help desk personnel and IT staff can offer assistance and troubleshooting, plus updates and installs, to multiple computers simultaneously. You can connect to your employee PCs through a Web-based portal and provide faster, more efficient service to anyone, anywhere, with an Internet connection. In less than 10 seconds, NetworkStreaming's new enterprise-grade, appliance-based product, the SupportDesk Appliance 300 (aka SA300), lets companies connect to their remote clients and coworkers all over the world. Designed for remote control support, access, presentation, and collaboration, the SA300 is designed for a multisystem configuration.

"We are the only appliance-based product in the remote support market," says Nathan McNeill, co-founder and vice president of product management at NetworkStreaming. "This has two implications: We offer a lower total cost of ownership over time because you can own our solution. Our competition requires an ongoing service fee."

Because the appliance is hosted internally to the customers' sites, McNeill adds, all remote control session data is routed internally through the customers' data centers—not NetworkStreaming's. This means customers can maintain more control over the security of their data, making it easier to comply with corporate and federal regulations.

The SA300 is NetworkStreaming's answer to the requests of enterprise customers, notes McNeill. This new appliance offers a drastic increase in capacity and redundancy over NetworkStreaming's existing model. And, like its previous model, the SA300 only requires power and an IP address. It's an optimized application environment that supports a high volume of SupportDesk sessions, and the company believes this device can meet the needs of its enterprise clients without sacrificing ease of deployment.

Similar products include Citrix GoToAssist (www.citrix.com), WebEx Support Center (www.webex.com), LogMeIn Rescue (secure.logmeinrescue.com), NTRsupport (formerly NTRinquiero; www.ntrsupport.com), and Symantec pcAnywhere (www.symantec.com). But, says Joel Bomgaars, founder and CEO of NetworkStreaming, "With the SA300, our customers can retain internal control of the sensitive data that passes between customer and support rep while at the same time reducing their total cost of ownership over time."

SnapShot

NetworkStreaming SA300

$9,995 for SA300 or $11,690 for SA300 plus one SupportDesk license

Offers appliance-based remote PC support

www.Processor.com/SupportDesk

Data Center Services
www.Processor.com/Prosource1

August 4, 2006



National Coverage!

Services
- Data Center Cleaning
- Environmental Audits
- Subfloor Encapsulation
- Post-Construction Site Prep
- Onsite Access Resurfacing
- Nationwide Service

Products
- Sticky Mats
- Portable Cooling
- HEPA Vacuums
- Test Instruments
- Room Air Cleaners
- Static Control Mats / Chemicals

ProSource
MISSION CRITICAL SERVICES

312 Old Wood Dr.
Columbia, SC 29212
Phone: (888) 247- 0986
Fax: (866) 253 - 7596

Data Center Services
www.Processor.com/DMD2

September 15, 2006



We Purchase
New, Used, Excess, Idle Computer and IT Equipment
We Offer
DOD Level Data Destruction - Outright Purchase - Ongoing Support - EPA-Compliant Recycling - Deinstallation - Security Services - Off-Lease Auditing - Packing
Call DMD Systems Recovery for a fast, friendly quote

DMD Systems Recovery, Inc.

1315 E. Gibson LN, Ste. E
Phone: (602) 307-0180

Phoenix, AZ 85034
Fax: (602) 307-0181

Repair
www.Processor.com/Pegasus

January 13, 2006



POS (Point-of-Sale) Barcoding / Scanners / Barcode Printers

Sales & Maintenance
- Quality Service
- Experienced Technicians
- Fast Return
- Servicing Major Brands

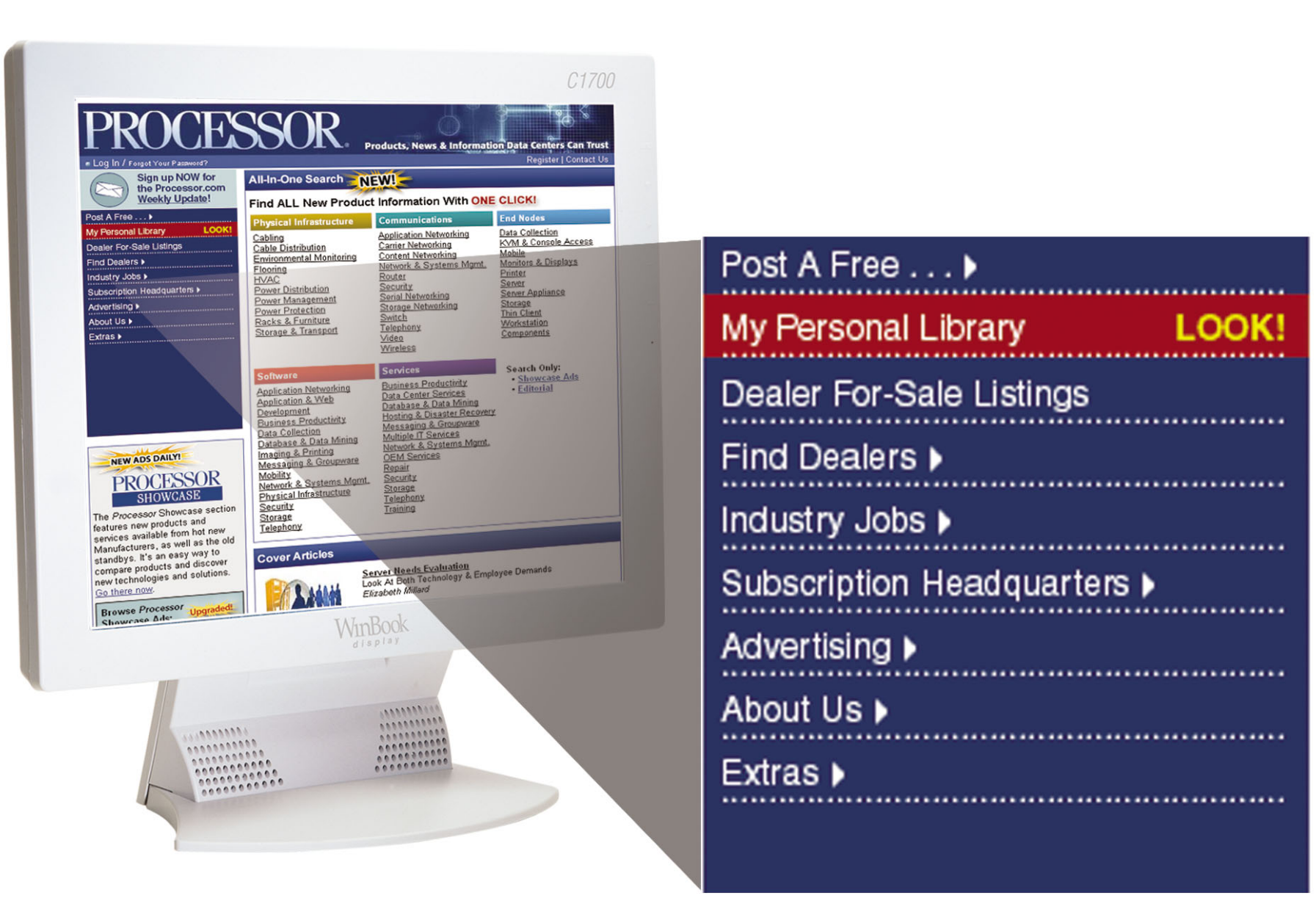
Symbol • Intermec • Zebra
Metrologic • Cisco Access Pts.

Call Us Today!

Pegasus Computer Marketing, Inc.

4 Mustang Circle
Forney, TX 75126
Phone: (800) 856-2111
Fax: (972) 564-5027

Same Great Information, New Look



Our new, easier-to-read home page allows you to **quickly find** the **information you need**.

PROCESSOR.COM®

TemPageR™... The Computer Room Temperature Monitor

Protect Valuable Equipment & Reduce Downtime By Monitoring Temperatures In Rack Cabinets, Computer Rooms & Data Centers



1U 19″ Rack,
Drop Ceiling & Wall
Mounting Kits Available.

$295 List... *On Sale For $245*

Rack Model On Sale For Just $275

- Arrives assembled & ready to install in minutes
- Allows real-time temperature monitoring & logging
- Includes 1 built-in & 1 external digital temperature sensor
- Allows 2 additional external digital temperature sensors
- External temperature sensors can be up to 100´ from box
- Includes **PageR *Enterprise*** for expanded monitoring
- Allows actual temperature values in alert messages
- Allows notification to individuals and groups
- Allows notification by email, SMS, SNMP & more
- Connects via Ethernet for easy & immediate use
- Allows management through a web browser
- Requires NO host PC, additional software use is optional
- Includes **TemPageR** box, 10´ Ethernet cable, CD, manuals
- 'Universal' Power Adapter, RoHS, works worldwide
- Includes Toll Free sales & technical assistance
- Includes 1 year 'Maintenance Support & Update Service'
- Includes a '30-Day Satisfaction Guarantee'
- Incorporates AVTECH's almost 20 years of experience

Save $$... *Order TemPageR Today!*

No one knows when or how disaster will strike. We just know the potential is always there. An early warning is critical to minimize the impact on computers, networks, users & the organization. When disaster occurs, there are significant costs in areas that go far beyond the simple replacement of damaged hardware. This is because what happens in your data center affects the entire organization and maybe even your customers.

Temperature monitoring is one of the biggest threats facing today's dense computer rooms and data centers. More and more hardware is placed in each rack and rooms that were never designed to house computers are often converted to IT data centers. Air conditioners are typically undersized, poorly placed, not maintained and run continuously until they die. When aircon units fail, critical servers continue to operate and crank out heat while cooling systems remain disabled. ***Oops!***

Computer and network equipment is designed to operate within a very specific range of temperatures. Basically, if your data center rises above 85° F, you're cooking your hardware and increasing the risk of failure. Unsure… just ask IBM, HP, Dell, Liebert or APC. The bottom line is that you need to know immediately when temperature issues arise because recovery is simply too expensive.

"25% of all data centers experience downtime more than 5 times a year… 60% of these last more than a half day."

Thankfully there's **TemPageR**, the low price, high value solution that monitors 24x7 to automatically alert your staff when temperature extremes or changes occur. It will log temperatures for easy export, runs without a host PC and easily integrates with advanced monitoring software like *PageR Enterprise, OpenView, Tivoli & Unicenter.* **TemPageR** is proven protection used by Fortune 1000, Pentagon, United Nations, NASA, U.S. government and businesses large & small… ***Why not at your facility?***

AVTECH Software has almost 20 years of experience serving data centers around the world. Our **TemPageR** product provides reliable, 'real-time' digital temperature monitoring with advanced features. Easy to install and configure, your staff can have **TemPageR** operational in minutes to protect your equipment and data center. If you're looking to monitor more than temperature, then consider one of our powerful **Room *Alert*** models to monitor temperature, humidity, power, flood, smoke, entry, and more. Our alerting and automatic corrective action capabilities are the most advanced available.

"Immediate detection & alert notification are the #1 ways to reduce downtime costs."

To learn more about **TemPageR** or **Room *Alert*,** visit us online or call to speak with a product specialist. We're happy to send you printed literature, quotes, evaluation CD's and more. You can request product quotes online for immediate delivery by email. AVTECH Software products ship complete with everything you need and include printed documentation, toll free technical support and a '30-Day Satisfaction Guarantee' return policy.

Buy Online or Call To Place Your Order

1.888.220.6700



www.AVTECH.com

New "Wireless" IT Environment Monitoring...

Room Alert 26W

www.RoomAlert.com/pro26.htm

Built-In Features:

- Digital Temperature Sensor
- Digital Humidity Sensor
- Main Power Sensor
- Flood Sensor w/8´ Flood Cable
- LED Status Indicators
- Uninterruptible Power Supply
- Wireless Sensor Capability
- Web Server, Auto Actions



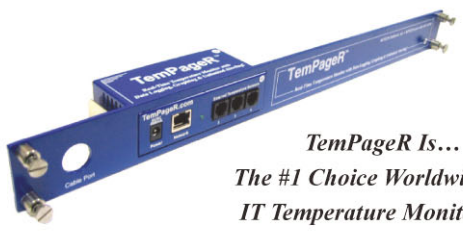
Call Now For Your Special $995 Introductory Offer!

INCLUDES: Room Alert 26W Rack Unit (1U 19"), built-in Digital Temperature sensor, built-in Digital Humidity sensor, built-in Main Power sensor, built-in Flood sensor with 8´ Flood cable, external Digital Temperature sensor, external Room Entry sensor, 6 external Digital Sensor Ports (RJ-11), 16 Switch Sensor Channels, unlimited Wireless Sensor capacity, LED Sensor Status & Wireless Strength indicators, built-in Uninterruptible Power Supply (UPS), Ethernet Connection (RJ-45), Expansion Port (RJ-45), 10´ Ethernet cable, 5V Power Adapter (110/240V, RoHS), built-in Web Server, built-in Alert Notifications, SNMP Trap & Query enabled, bundled PageR 20 Object Enterprise license, CD installation & resource media, printed User's Guides & Reference Manuals, 12 months of Maintenance Support & Update Service, '30-Day Satisfaction Guarantee'. Additional sensors and software upgrades available.

Online: EnvironmentMonitor.com • Phone: 888.220.6700 / 401.847.6700 • Fax: 401.847.6701

TemPageR 4E

www.TemPageR.com/pro4.htm



TemPageR Is… The #1 Choice Worldwide For IT Temperature Monitoring!

AVTECH Software

Rack Model # TMPE-ES1-RAS $345
Standard # TMPE-ES1-BAS $295

Room Alert 7E

www.RoomAlert.com/pro7.htm



Monthly Specials Online

Room Alert… Has The Best Value Ratio Available. View Individual Features & Model Comparison Online.

AVTECH Software

Rack Model # RA7E-ES1-RAS $445
Standard # RA7E-ES1-BAS $395

Room Alert 11E

www.RoomAlert.com/pro11.htm



Room Alert 11E… Protects More Critical Data Centers Than Any Other Product Of Its Class.

AVTECH Software

Rack Model # RA11E-ES1-RAS $545
Standard # RA11E-ES1-BAS $495

© Copyright 1988-2006 AVTECH Software, Inc. All Rights Reserved. AVTECH, AVTECH Software, AVTECH.com, EnvironmentMonitor.com, 'Environment Monitoring Made Easy!', 'Network-Wide Monitoring Made Easy!', PageR, PageR Enterprise, PagerEnterprise.com, Room Alert, RoomAlert.com, TemPageR, TemPageR.com and 'Temperature Monitoring Made Easy!' are trademarks or registered trademarks of AVTECH Software, Inc., Newport, RI, U.S.A. Any other trademarks used are the property of their respective owners. Learn why 37 of 50 state governments and over 80% of the Fortune 1000 use Room Alert or TemPageR. Easy online ordering is available at www.EnvironmentMonitor.com. ***Call now to protect your data center!*** Reseller Inquiries are welcome.

OPINIONS
BENT • ON • STORAGE

Here Today, Gone Tomorrow

I first encountered the concept of our digital dark age in 1994 as an employee with Palindrome during a visit to 3M's NML (National Media Lab) to discuss recording technologies with the researchers there. The NML is a government-funded program that studies the problems associated with digital archiving, with a particular focus on the media and devices used to store archived data.

At some point during my visit, the researchers posed a question that has fascinated me ever since: "What do you need to do to ensure that research scientists 50 years from now can access the data we are now recording that is coming from Mars?" At first blush, this requirement doesn't appear so awfully difficult, but of course the more you look into this type of thing, the harder it becomes.

The media can only be counted on to last for a certain period of time, the equipment becomes obsolete and cannot be maintained, and finally, the data formats become as unrecognizable as Latin. The stored data might still hold secrets for talented researchers, but it might take an equal amount of genius just to make the data accessible to them.

Since then I have heard many tales of obsolete systems and data virtually disappearing because the cost of accessing them is too great. It seems the only way anyone will pay to resurrect old storage technologies is to engage a patent infringement suit where the proof of prior capabilities is best proven by digging up ancient digital artifacts and playing (or running) them on equipment fished out of Uncle Larry's basement.

Living In The Dark

This has given rise to an awareness that we are living in a digital dark age. We might not be suffering in the blackness now, but our descendents won't have much information about us because our output is simply disintegrating in dump grounds, dust heaps, and electronics recycling processes. If you happen to be a lawbreaker, this digital amnesty might be appealing, but few of us want our experiences to be completely forgotten.

At this point, you might be thinking that this is all rubbish and that the World Wide Web, as the ultimate messy office of the universe, will have our valuable records and rationales somewhere—but you are probably wrong. Many things disappear from the Web every day, never to be seen again. Certainly there is a lot of goodness in that purging, but there are probably also tiny tragedies of loss, too. Over time, most everything we value seems unimportant enough to somebody else with a house-cleaning fetish to blow away.

Ironically, as I was researching the NML, I found that there was data it once published that I could no longer access. I assume this information is still available from Imation (the NML went with Imation when it spun out of 3M), but who knows? The powers of change, including corporate mergers, acquisitions, spinouts, and business failures, all impact the permanence of our recorded data.

Recent government regulations such as HIPAA promise to force the issue by demanding long-term archiving technologies. The question is, when will they arrive and will they actually work? There are certainly vendors who want to sell their solutions, but it doesn't mean the future of their technologies is going to be any more successful than all the other obsolete technologies that have fallen by the wayside.

Data Archiving Complications

One of the most challenging problems with data archiving today is the requirement for protecting it from ne'er-do-wells who might want to peek at it or change it somehow. There have already been numerous accounts where people have tried to rewrite digital history, and the thought of large, quiet repositories of data is definitely going to appeal to certain hackers out there looking for a lifelong hobby of slo-mo mayhem.

This leads to the necessity of encryption and other privacy technologies, which leads to the discussion of keys or other access methods. Ask yourself this question: After an archive is discovered to be compromised, what is the best policy? Should the encrypted data be encrypted again (multilayer encryption)? Or should the data be unencrypted first and then encrypted anew? Do you move forward trying to manage two or more keys, or do you risk exposing the data by unencrypting it?

There is an interesting paper that will be published later this month titled "Long-Term Threats to Secure Archives" written by Mark Storer, Kevin Greenan, and Ethan Miller of the Storage Systems Research Center at the University of California, Santa Cruz. Their paper explores the problems and some of the potential technology and practice solutions that could come into play. The URL for it is www.cs.ucsc.edu/~elm/Papers/storagess06threats.pdf.

If this kind of stuff is interesting to you, I suggest checking it out, before it disappears.

MARC FARLEY

AUTHOR *Marc Farley is the author of "Building Storage Networks," the leading technology book in the field of storage networking. He is also the president of Building Storage, Inc., a company that provides consulting and educational services to the network storage and financial services industries. Farley regularly writes and speaks about storage networking technology and is an online expert for the SearchStorage Web site.*



Send your comments to marc@processor.com

ENVIRONMENTAL MONITORING AUGUST 25, 2006

Protect Your IT Equipment, Don't Wait Until It's Too Late!

Environment Monitoring With Alerting & Automatic Corrective Actions



AVTECH SOFTWARE'S Room Alert 11ER is a hardware/software solution that allows easy remote monitoring of critical environment conditions in the computer room, data center, rack cabinet, or other facility. These physical environment conditions include temperature, humidity, power, flood, fire, and more. Once an issue or event is detected, Room Alert immediately alerts managers and staff, allowing an immediate response and automatic corrective action to avoid or minimize downtime and costly hardware replacement.

Environment monitoring is critically important because computer and network equipment is designed to operate effectively within a specific range of environment conditions. If conditions get out of bounds, then unpredictable and potentially catastrophic results can occur to cause extreme system, application, or network problems. This makes it appear to the world that your organization is out of business, can cause delays in service, and may create significant problems and huge losses in revenue.

Once Room Alert is plugged into the network, users can immediately monitor the environment using their favorite Web browser via Room Alert's built-in server. That's right...**NO PC Required!** Users can also use their favorite monitoring software, such as AVTECH Software's **PageR Enterprise** (a small license is bundled with Room Alert at no charge), to monitor unlimited Room Alert units network-wide via SNMP. This will significantly extend alerting methods, add automatic corrective actions, and enable network-wide monitoring.

Room Alert

A hardware/software solution for easy remote monitoring of critical environmental conditions

Solutions Start At $295

(888) 220-6700

www.Processor.com/Avtech13

AVTECH Software

RACKS & FURNITURE SEPTEMBER 1, 2006

Sturdy & Modifiable Design

INTELLINET NETWORK SOLUTIONS Cabinet Protects Hardware & Data



Part # SW-5009

INTELLINET NETWORK SOLUTIONS
BRINGING NETWORKS TO LIFE

LIFETIME WARRANTY

THE FRONT DOOR of the server rack/cabinet is constructed of smoked and shatterproof glass. The full-length door is mounted securely on spring-loaded hinges for easy opening and closing. The glass is reinforced with a decorative metal frame. Both front and rear doors are removable and/or reversible for easy accessibility. A pop-up lock features a three-point locking mechanism and keeps the door closed and locked. The frame's construction is rigidly welded from sturdy steel, pre-assembled.

Easily Modifiable

Despite its virtually indestructible construction, the INTELLINET NETWORK SOLUTIONS 42U server cabinet is easily modifiable and expandable. Adjustable mounting brackets (front: two each/back two each) allow for flexible configuration and adjustable depth. Quick release lockable side doors with slam latches and locks facilitate loading and unloading rack-mounted server components. Vented for efficient and effective cooling.

Features

- Pre-assembled
- Pop up lock and three point locking mechanism
- Multiple cable entry points on the roof and bottom of frame
- Quick release, lockable and removable side doors with slam latches and locks
- Vented top panel
- Secure, locking front and back doors with spring-loaded hinges
- Removable front and rear doors for connecting cabinets
- Rigid, welded frame construction
- Easy mounting, fast assembly

Sewell Part # SW-5009

A solid, easily modifiable server rack/cabinet that provides secure protection for hardware and data

$1,179.95

(800) 709-1345

www.Processor.com/sewell11

SEWELL
SEWELLDIRECT.COM

OPINIONS
DATA • DEVELOPMENTS

Microsoft Predicts Or Causes Disruption?

Over the weekend I spoke at a small conference in Los Angeles. I got a chance to talk to Rocky Lhotka there; he's the object guru and a fellow speaker/trainer/consultant. While we didn't have a lot of time, the subject of Microsoft came up (as it usually does). He does not seem that thrilled with the state of the technology that he's documenting. It seems that he can hardly find any worthwhile documentation, and Google is less than helpful; it's that leading edge. I think we're seeing the seams in the fabric being pulled very tightly.

I spent considerably more time with the other speakers at dinner, and while the conversation drifted to politics and war stories, many were also concerned about Ozzie and his band—and I don't mean Nelson. Of course, most of you are too young to know that Ricky's dad (Ozzie Nelson) led a swing band in the '30s. Our Ozzie is Microsoft's Ray Ozzie, the one who predicted years of "disruption" for the industry during the keynote at the TechEd conference in Boston last June.

We agreed that this disruption seems to have started about five years ago, not long after I left Microsoft. Ah, no. I don't think Microsoft fell apart because I left any more than I think that global warming started when President Bush took office, despite the increased greenhouse gases emitted around Washington during his term. Both of these trends were put into motion years ago. I saw the symptoms of both of these trends before I left.

In The Beginning

When I first joined Microsoft in 1986, it was like many of the other entrepreneurial startups for whom I had worked in the preceding 15 years. It was nimble and quick to react to new opportunities, full of young, energetic talent and committed to making a place for its ideas in the market.

It was less arrogant then than now as Microsoft knew that the industry could turn on a dime, and it could be washed out to sea with the next innovation. When the Internet took hold, it nearly was. At the beginning, everyone from the janitors to the developers to the receptionists were permanent employees. It was not unusual to see a receptionist working late into the night preparing marketing materials for an upcoming event. All the employees seemed to work together as if they personally had a stake in the company's success. Perhaps that's because they did.

Today, the janitors, receptionists, artists, writers, many of the developers, and many, many others are no longer employees but contract workers—there for an 8-to-5 job. Microsoft has outsourced not only many of its development teams but its managers, as well. Sure, some folks put in extra hours, but since they get no benefits or stock, what's their incentive besides doing what's necessary to keep the checks coming in?

The fact that these teams are working 10 time zones away makes it even more difficult for those in the United States to contact and interact with them on a daily basis. When I needed help with an issue that only a developer could solve, I had to commute from building 21 to building 42—a 10-minute walk or a 30-minute bus ride. Now I would have to travel to India and spend two days recovering from jet lag on each end of the trip. In the beginning, Microsoft swore that it didn't want to become another IBM—and it hasn't; IBM makes its people wear suits and shoes to work.

Where It's Going

In interviews I've had with IT people and developers, it's clear Microsoft has moved too far too fast in an effort to be all things to all customers. It wants to be the one and only OS vendor for consumer and IT systems alike. It wants to make games and mice and word processors as well as the tools to build all of these applications and systems.

With its constant churn of the development tools, IT community DBAs and developers tell me they have just now finished installation of SQL Server 2000 only to be told they must convert to 2005 before being able to run on Vista. They're confused why Microsoft keeps pumping out tools designed for developers who create the simplest of data access applications but denigrate those developers who took Microsoft's advice and wrote more scalable and supportable stored procedure-based applications.

Developers are encouraged to use Entity Data Modeling and the new DLINQ products now being integrated into Visual Studio, but Microsoft doesn't have time to finish the documentation for the features it already has—or fix the bugs. Some of the insiders at Microsoft who are willing to confide in me are as frustrated as I am. And now we hear that more than 900 top executives at Microsoft are being given bonuses that total close to $1 billion. Given that its latest buy-back Dutch auction did not pan out that well, I guess some of these executives might be better off just buying the Bahamas so they have somewhere to escape to when the stockholders come looking for them. P

Send your comments to bill@processor.com



WILLIAM (BILL) VAUGHN

AUTHOR *William (Bill) Vaughn is an industry-recognized author, mentor, and subject-matter expert with more than 30 years in the computing industry as a developer, manager, trainer, marketer, and writer. After 14 years at Microsoft, Vaughn stepped away to work on his new books, in addition to mentoring and leading training seminars. He's written six editions of the "Hitchhiker's Guide to Visual Basic and SQL Server" and two editions of "ADO.NET and ADO Examples and Best Practices for Visual Basic Programmers." He and Peter Blackburn just finished "Hitchhiker's Guide to SQL Server 2000 Reporting Services."*

VPC3106
www.pulizzi.com/vpc
VPC2864-1
www.pulizzi.com/vpc
VPC2864-A1
www.pulizzi.com/vpc

Three Phase Power Distribution

Same Day Shipping On In Stock Power Distribution Units
(Orders placed by 12 PM Central)
www.pulizzi.com/stock

NEW High POWER!



- Three phase input - up to 72 amps single phase power!
- Current meter allows phase balancing/full loading
- Vertical strip requires no rack space - "0"U mounting!
- High power maximum density
- 120 volt and 208 volt configuration

Z-LINE
ISO 9001:2000

PULIZZI®
ENGINEERING, INC.
www.pulizzi.com
1-877-PULIZZI
(785-4994)

Made In The U.S.A. For Worldwide Use

PRC0506

Network Power Switches

Control Power on Any AC Powered Device ...
Via Web Browser, Telnet, Modem or Local Terminal

Servers, routers and other electronic equipment occaisionally "lock-up", often requiring a service call to a remote site just to flip the power switch to perform a simple reboot. With WTI's Remote Power Switches, you can perform reboot and On/Off control from anywhere!

- Web Browser Access for Easy Setup and Operation
- Vertical or Horizontal Zero U SPace Mounting Options
- Dual 15 or 20 Amp Power Circuits
- Switch up to 8,320 Watts
- 120 VAC Models - NEMA 5-15R Outlets
- 208/230 VAC Models - IEC320-C13 Outlets
- Up to Sixteen (16) Individual Outlets
- Power-Up Sequencing
- RS232 Modem/Console Port
- Accepts Standard C-19 to L5/6-20P Power Cords


IPS-800


IPS-1600

Yes, We are Customer Friendly!
- ✔ Two Year Warranty
- ✔ We Stock for Same Day Shipment
- ✔ 30 Day Return Policy
- ✔ Call or Email for an Online Demo


Dual Power Inputs
NBB-1600

wti
www.wti.com
western telematic incorporated
5 Sterling • Irvine • California • 92618-2517 • (800) 854-7226

Cabling
www.Processor.com/Test-Um3

AUGUST 4, 2006



Only
$319.25

The **NT700 Lanscaper** is an active network device that tests network cables as per TIA568 and interacts with the active network devices to give a clear picture of configuration and status
- Conducts link tests for ID speed capabilities and activity of network drops
- Pings network devices to verify connections and IP addresses
- Identifies port services: POTS, Ethernet, ISDN, etc.

Test-Um Inc.
The Intelligent Test Solutions Company

808 Calle Plano
Phone: (805) 383-1500

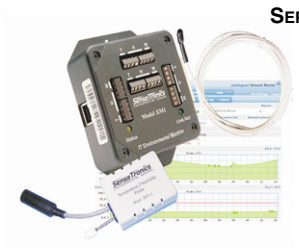
JDSU

Camarillo, CA 93012
Fax: (805) 383-1595

Environmental Monitoring
www.Processor.com/Sensatronics

SEPTEMBER 15, 2006

Monitors Starting at
$249



Networkable Environmental Monitor
- Allows you to stay connected to your IT Environment to prevent excessive heat, humidity, and water intrusion
- Supports SNMP with your own software or use ours
- Sets up in minutes

28% of Fortune 100 Companies already know WE SAVE DATA CENTERS!

SensaTronics
ENVIRONMENTAL SENSING
"You saved my datacenter"

20A Dunklee Road
Bow, NH 03304
Phone: (866) 599-5059
Fax: (603) 224-2401

HVAC
www.Processor.com/Atlas3

SEPTEMBER 22, 2006



Cool Cube Rackmountable

Portable Air Conditioning

Ideal For:
- Server Rooms
- Electronic Equipment
- Primary, Supplemental, or Emergency Cooling

Featuring:
- Rentals and Sales
- Installs in Minutes
- Locations Nationwide

Atlas Sales & Rentals, Inc.
THE PORTABLE COOLING & HEATING SPECIALISTS

PO Box 988
Phone: (800) 972-6600

Newark, CA 94560
Fax: (510) 713-3311

HVAC
www.Processor.com/Rackmount25

JULY 7, 2006



Air Conditioned Cabinet
- From 1,800 to 10,000 BTU
- Rackmount & Sidemount
- Three sets of L-shaped universal vertical rails
- Base, casters, and leveling feet standard
- Removable side panels
- Lexan front door (or solid steel) w/ lockable handle
- Steel rear door with lockable swing door handle
- Avail. in heights of 24u, 30u, 35u, 40u, 42u, 44u, 48u; depths of 24", 30", 36" and 42"; widths of 19", 23" & 24"

RACKMOUNT SOLUTIONS, LTD
where customer service matters

915 S. Jupiter Road
Garland, TX 75042
Phone: (866) 207-6631
Fax: (972) 276-6484

Power Distribution
www.Processor.com/CyberSwitching6

SEPTEMBER 22, 2006

Powering Up Your Network With the E Series



- 12A, 20A, or 30A rated
- True RMS current and voltage measurement
- 3 Digit Display Flashes when:
  - Current exceeds 80% of rating and/or
  - High or Low voltage condition exists
- Ethernet connection available
- Available in Zero RU vertical & 1RU horizontal models

CYBER SWITCHING®

1281 Wayne Ave
Phone: (408) 436-9830

San Jose, CA 95131
Fax: (408) 436-9828

Power Distribution
www.Processor.com/ServerTechnology8

SEPTEMBER 1, 2006



Smart CDU CS-12VD/VY 3PH
- High Power Distribution - 208 to 240V 3-Phase input at 60A
- High Density - 12 IEC C19 outlets
- IP Access and Security - Web Interface, SSL, SSH, Telnet, SNMP, LDAP, TACACS+, and RS-232
- Load Current Monitor - Measures current draw on each power circuit, makes load balancing simpler
- Environmental Monitoring

Server Technology, Inc.

1040 Sandhill Road
Reno, NV 89521
Phone: (800) 835-1515
Fax: (775) 284-2065

Power Management
www.Processor.com/ServerTechnology7

SEPTEMBER 1, 2006



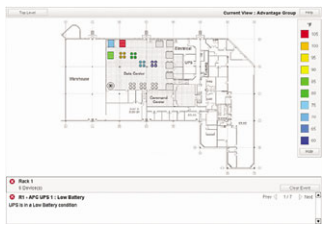
Switched CDU CW-48VY 3PH
Power cycle indiviudal groups of outlets to remotely reboot servers network devices.
- High Power Distribution -208 to 240V 3-Phase input at 32A
- High Density Switched Power - 48 IEC C13 outlets
- IP Access and Security - Web interface, SSL, SSH, Telnet, SNMP, LDAP, TACACS+, and RS-232 access
- Environmental Monitoring

Server Technology, Inc.

1040 Sandhill Road
Reno, NV 89521
Phone: (800) 835-1515
Fax: (775) 284-2065

Power Management
www.Processor.com/ServerTechnology9

SEPTEMBER 1, 2006



Enterprise View
- Remote managment of STI Sentry PDUs over IP
- View your entire system from Global View down to the rack level
- Centralized event logging with extensive logs and reports
- Thermographic mapping shows a visual depiction of hot spots in your data center

Server Technology, Inc.

1040 Sandhill Rd
Reno, NV 89521
Phone: (800) 835-1515
Fax: (775) 284-2065

Power Management
www.Processor.com/Baytech3

FEBRUARY 3, 2006



24 Receptacle Remote Power Monitoring & Distribution
- Current, Voltage, Power, and Temp Monitoring
- LCD Screen Display
- RS232 Interface 120/208VAC 10,20,30A Models
- Power Distribution and Monitoring In One Unit

BayTech

5239 Avenue A
Long Beach, MS 39560
Phone: (800) 523-2702
Fax: (228) 563-7335

Power Management
www.Processor.com/Baytech

FEBRUARY 3, 2006



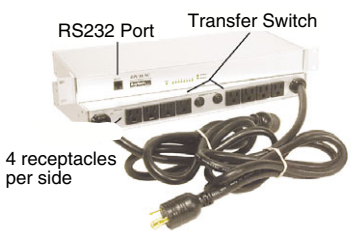
8 Receptacle Power Control and Monitoring
- Current, Voltage, Power, and Temp Monitoring
- LCD Screen Displays Power Monitoring Information
- RS232 interface, 120/208VAC 10,20,30A Models
- Turn On, Off, or Reboot any or All Receptacles

BayTech

5239 Avenue A
Long Beach, MS 39560
Phone: (800) 523-2702
Fax: (228) 563-7335

Power Protection
www.Processor.com/Baytech2

FEBRUARY 3, 2006



8 Receptacle Power Control / Monitoring w/Trans Switch
- Current, Voltage, Power, and Temp Monitoring
- Automatic Transfer Switch
- RS232 or Network Interface 120/208VAC 10, 20, 30A Models
- Turn On, Off, or Reboot any or All Receptacles

BayTech

5239 Avenue A
Long Beach, MS 39560
Phone: (800) 523-2702
Fax: (228) 563-7335

Power Protection
www.Processor.com/ServerTechnology6

SEPTEMBER 1, 2006



Sentry 30-A Fail-Safe Transfer Switch provides fail-safe redundant power to single-power corded equipment.
- Fast Transfer Rate - Power interruption will not affect equipment uptime or performance
- Patented arc-suppression and power in-feed sharing technology extend product life and performance
- High Density - 100 to 240V and 16/32A

Server Technology, Inc.

1040 Sandhill Rd
Reno, NV 89521
Phone: (800) 835-1515
Fax: (775) 284-2065

We've Changed
Have You Noticed?

If you're in the market for data center equipment, you need to make Processor.com your first stop.

The New All-In-One search at Processor.com makes it easy to:

- Find **product information**
- **Research** and **compare** related products in a category
- Read **editorial reviews** and **articles** related to a topic
- Enter **keywords** to search for **product information**
- Send an **email** to a **product manufacturer**, link to the manufacturer's Web site for **additional product information**, or find a **phone number** to call

All with JUST ONE CLICK!

Go Online To: www.Processor.com today!

PROCESSOR.COM®



Racks & Furniture
www.Processor.com/Hergo2



JULY 28, 2006

19" Enclosure Cabinet

- 42 U x 36" Deep
- 4 Mounting Rails
- Front and Rear Lockable Doors, choice of Solid, Tempered Glass or Perforated
- 2 Removable and Lockable Side Panels
- 4 Dual Wheels

On Sale and ready to go!

hergo® TECHNICAL WORKSPACE SOLUTIONS

56-01 55th Avenue
Maspeth, NY 11378
Phone: (888) 222-7270
Fax: (888) 410-0671

Racks & Furniture
www.Processor.com/Hergo3



JULY 28, 2006

Hergo iRack Relay Rack
4 Post 19" Relay Rack

- Vertical Mounting Space: 12U, 26U, 42U
- Offered in 3 Depths: 24", 30", 36" Deep
- 4 Heavy-Duty Steel Uprights
- 4 Gliders
- Ships Knock-Down
- Easy to Assemble

hergo® TECHNICAL WORKSPACE SOLUTIONS

56-01 55th Avenue
Maspeth, NY 11378
Phone: (888) 222-7270
Fax: (888) 410-0671

Racks & Furniture
www.Processor.com/Rackmount24

JULY 7, 2006



NEBS Server Cabinet
Certified to Seismic Zone 4

Based on the standard, patented frame design of our RS, RSP and FRS server rack series, this NEBS-compliant configuration has been tested and certified to meet Telcordia (Bellcore) GR-63-CORE requirements for ZONE 4 seismic earthquake environments.

GSA #GS-35F-0208R

RACKMOUNT SOLUTIONS, LTD
where customer service matters

915 S. Jupiter Road
Garland, TX 75042
Phone: (866) 207-6631
Fax: (972) 276-6484

Racks & Furniture
www.Processor.com/Rackmount19

SEPTEMBER 1, 2006



Large Cable Bundle
Network Rack

- Need a COMM rack with the rack rails moved to one side to accommodate large cable bundles?
- You have the option to slide your vertical rack rails horizontally as well as vertically. Set your rack-mount width to 19 or 23 inches. Talk about versatility in one network rack!
- Slide the rack rails to one side of the cabinet, allowing for additional 4 to 9 inches of space on the opposite side to run large cable bundles.

RACKMOUNT SOLUTIONS, LTD
where customer service matters,

915 S. Jupiter Road
Garland, TX 75042
Phone: (866) 207-6631
Fax: (972) 276-6484

Racks & Furniture
www.Processor.com/ISC5

MARCH 10, 2006



Low Profile
19" Server Cabinet

- Available in variety of sizes: 6U, 9U, 12U, 15U, or 18U
- Cabinet depth choice of 32"D or 39"D
- Quick-release reversible hinged doors
- Universal rack rails fit all major brand servers
- Vented top and bottom panel with cable plate
- Leveling feet

To Learn More, Visit:
www.Processor.com/ISC5

ISC Information Support Concepts, INC

714 N. Watson Road, Suite 302
Phone: (800) 458-6255

Arlington, TX 76011
Fax: (817) 649-1770

Racks & Furniture
www.Processor.com/Hergo4

JULY 28, 2006



Technical Workstations

- Pre-configured or Made to Order Units
- Heavy-duty 11-Gauge Steel Frames, Legs and Shelf Brackets
- Frame Sizes: 72" or 84"H, 24, 30 or 36"W
- High-Pressure Laminated Desktops
- Cable and Power Management Options
- Flat Panel or CRT Monitor Mounting Solutions
- Nationwide Delivery and Installation

hergo® TECHNICAL WORKSPACE SOLUTIONS

56-01 55th Avenue
Maspeth, NY 11378
Phone: (888) 222-7270
Fax: (888) 410-0671

Recycling Media

Make Environmentally Sound Decisions While Maintaining Security

by Will Kelly

• • •

THE RECYCLING OR DESTRUCTION of media is a security concern for small to medium-sized enterprises that want to ensure that their corporate data doesn't fall into the wrong hands. After deciding whether to recycle or destroy your media, the next step is to choose a reputable media recycling company and take steps to ensure that your media doesn't fall into the wrong hands after the hand-off to the provider.

Recycling vs. Destroying Media

Deciding to recycle vs. destroy your media is at the intersection of security and being environmentally conscious. However, many states and municipalities have strict laws regulating the disposal of magnetic media. Just throwing your media into the garbage can unleashes your unprotected data into the wild for anybody to pick up.

Jay Ellis with Media Mastr Computer Products says, "To start off with, the tapes have no value if they were not looked after environmentally. If the tapes are damaged goods . . . shred 'em and stuff 'em in a landfill. For example, if they were stored in a basement that only floods once a year . . . forget about the tapes having any value in the used market. It is moisture and heat that accelerates oxidation that kill the tapes."

Ellis continues, "On the other hand, if the tapes were kept cool and dry in the stacks, then they are a candidate for recycling. . . . It's plain to see that tapes are still useful long after the computer drives needed to restore them have worn out."

Jennifer Musiel of RecycleYourMedia.com advises that the main issues that data center/IT managers need to keep in mind when choosing between recycling and destroying tapes is that there are secure processes for data destruction that keep data security in the forefront; it's possible to recoup IT costs by selling tapes; and environmental concerns should be a consideration, as e-waste is toxic waste.

"Destroying tape to get rid of data isn't the best choice. Get the residual value out of the tape," says Clay Teramo, president of The Data Media Source, who sees the destruction of tape media through either incineration or grinding as overkill and not the most secure or financially valuable option.

Ellis echoes a similar sentiment: "Destroying the tape inventory is literally throwing the company's resources down the tubes. It's the information that needs to be removed from the tapes. This is not rocket science." He further says, "It's been done for decades. It's called degaussing. By introducing a predetermined magnetic field for a specific kind of tape . . . the previous recorded computer signals are reset to a blank tape condition. Those tapes with servo tracks for alignment are not degaussed but erased with random encryption techniques via overwriting. The information that was on these tapes is unrecoverable. So now you have blank tapes with a couple decades' worth of use available to them."

Choose A Reputable Company

When selecting a reputable company for recycling or destroying your media, Tim Henning, technical services manager with Media Recovery, advises that you take the time to question its security and tour its facility. "If the vendor doesn't offer up details about their security or a tour of their facility, then you should be wary," says Ellis.

Terramo advises that you look for a vendor that offers a replicable and transparent process and full certification of the data destruction by the tape serial number on each cartridge. In addition, if the vendor has to transport your tape media offsite, it should transport it in a secured and sealed container.

Ensure Your Data's Safety

Perhaps the biggest fear, uncertainty, and doubt of sending your media out for recycling is ensuring that your data doesn't fall into the wrong hands once it leaves your data center.

Understanding and ensuring the chain of custody is important to the security of your data once tapes leave your facility. Moreover, the best way to secure the chain of custody is to look at the removal of tape media as moving individual tape, not a commodity. "You have to be concerned what happens from here to there," says Teramo, who also points to scenarios where state laws may require tapes to be destroyed in out-of-state facilities that may have a backlog of work.

Musiel says, "We [RecycleYourMedia.com] can provide a volume serial number report for each data tape that has been degaussed." Her company offers further assurance by providing tracking numbers "so you know where your tapes are at all times."

Ellis says, "If you have degaussed your information . . . it really does not matter. No one will recover your data. If you are giving live tapes to a vendor, then you have to go with someone you trust. Call their references. You can [protect your company] with a certificate of destruction . . . but really, it's the vendor's ethics that matter."

Your vendor selection should balance on the vendor's transparent and replicable process, certifications, and the security it puts into place to ensure the security of your corporate data when it leaves your facility.

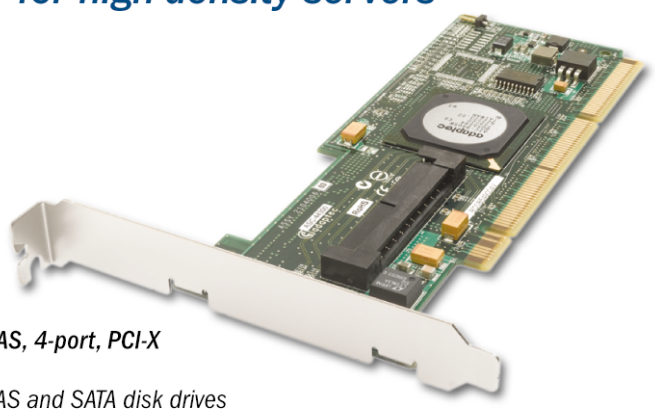
Media Recycling Companies

Company	Description	URL
Data Media Source	Performs full life cycle data destruction of data on tapes and resells tapes	www.Processor.com/DataMedia
Media Mastr	Degausses and recycles media	www.Processor.com/MediaMastr
Computer Products Media Recovery	Focuses on critical day-to-day operations by providing comprehensive storage media services	www.Processor.com/MediaRecovery
RecycleYour-Media.com	Buys tape drives, tape libraries, and tape media; also recycles tapes that no longer have retail value	www.Processor.com/Recycle

Adaptec Serial Attached SCSI RAID 44300

High-Performance Unified Serial™ Controller!

Internal connectivity to Serial Attached SCSI (SAS) and Serial ATA (SATA) drives and data protection for high-density servers



SAS, 4-port, PCI-X

- *Connects to both SAS and SATA disk drives*
- *4 internal ports*
- *Integrated RAID levels 0, 1, and 10*
- *Bootable array support*
- *48-bit LBA support*

Discover all the advantages of using Adaptec Unified Serial controllers to create simplified solutions that leverage both SAS and SATA drives. Read the white paper at www.adaptec.com/go/unify2

Choose Adaptec Trusted Storage solutions for controllers built with the expertise of 25 years of market leadership and the industry's most widely deployed RAID protection.

Serial ATA 1.5Gb/s · Serial Attached SCSI · RoHS Compliant 2002/95/EC · Unified Serial Architecture

adaptec

Copyright 2006 Adaptec, Inc. All rights reserved. Adaptec, the Adaptec logo are trademarks of Adaptec, Inc., which may be registered in some jurisdictions. All other trademarks used are owned by their respective owners.

NodalCore® C-2000 Multi-Gigabit Content Security Accelerators

Next-generation UTM acceleration

The NodalCore C-2000 comes with the SAA UTM software framework, which provides full access to an extensive ecosystem of commercial and open-source network & security applications, such as Antivirus, Antispam, Antispyware, IDS/IPS, Content Filtering and QoS. This suite of best-of-breed applications enables developers to rapidly bundle, integrate and deploy a wide range of security solutions. Special C-2000 and application pricing bundles are available. For a complete list go to:
www.sensorynetworks.com/Ecosystem/

The C-2000 next-generation product range provides content security acceleration solutions from 100Mbps to 10 Gbps. SAA also provides multicard support.

C-2000 SX

Entry level card for SME appliances rated from 100 Mbps - 1 Gbps.

C-2000 MX

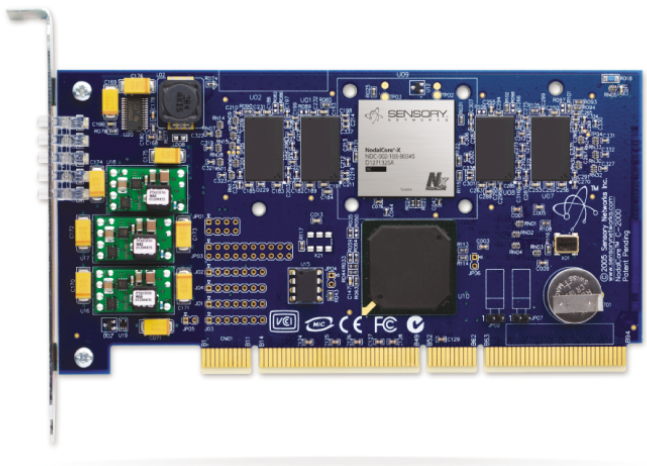
Mid-range card for appliances rated from 1 Gbps - 2 Gbps.

C-2000 ULTRA

High-performance card for enterprise appliances rated from 2 Gbps - 4 Gbps.

Scalable architecture provides security appliance vendors with a wide range of performance price points.

For More Information: www.Processor.com/SensoryNetworks4



2595 East Bayshore Road, Suite 200
Palo Alto, CA, 94301
Phone: (650) 292 4636
Fax: (650) 618 2769
sales@sensorynetworks.com

SENSORY NETWORKS

Group Policy Objects

More Than Just A Tracking Tool

by Douglas Schweitzer, Sc.D.

• • •

Network administrators at organizations using the latest Microsoft servers and operating systems often use Group Policy Objects, aka GPOs, to manage their company desktops via a centralized directory. While GPOs make for streamlined, often seamless, data center managing operations, they sometimes complicate certain file management tasks. The best GPO approach depends on your organization's specific needs.

Using GPOs

From outlining policies for company system users to enforcing those policies, managers customize GPOs as their networks require. According to Gil Kirkpatrick, chief technical officer at NetPro, "Group Policy is part of Microsoft's IntelliMirror technology, which aims to reduce the overall cost of supporting users of Windows. Group Policy provides centralized management of computers and users in an Active Directory environment."

System users and desktops are grouped into OUs (organizational units), which can eventually include thousands, depending on the size of the organization. And it's not only the Windows platforms that benefit from the GPO; with third-party products, administrators can manage the configuration of mobile devices and Linux and Unix platforms, as well. Desktops within units can be included in automatic distributions of application software, also via Group Policy Objects.

However, the primary aim of the GPO is to help administrators more easily enforce the configuration policies assigned to OUs. Kirkpatrick adds, "Group Policy can control a target object's Registry, NTFS security, audit and security policy, software installation, logon/logoff scripts, folder redirection, and Internet Explorer settings. GPOs may be linked to sites, domains, and organizational units in Active Directory."

The SME Data Center

According to Kirkpatrick, "Group Policy is the easiest way to ensure that users and computers in your Windows network are configured properly, and it is perfectly suited to smaller environments." He advises that managers keep abreast of the current data on Group Policy and recommends community Web sites such as www.gpoguy.com and www.gpanswers.com and the reference site www.dec2007.com.

Initially, GPOs should be kept simple, with no more than two or three policies applied to any given user or computer; these will define your configurations policies and limit them to the appropriate domains and OUs. Kim Pearson, CEO of New Boundary Technologies, says, "While GPOs can be useful for enforcing certain settings at login, administrators need more than that to achieve true configuration management and security across dozens, hundreds, or thousands of machines with heterogeneous configurations that may also be geographically dispersed."

The company is wise to restrict policy-making and modifying to only a small number of individuals—for the SME, just one or two administrators, along with an additional in-the-loop backup person, will suffice. Sort your desktops, servers, and users based on the kinds of configuration policies you want to apply to them. For instance, says Kirkpatrick, "You may want to lock down the configuration of your accounting departments' desktops to reduce the risk of someone inadvertently modifying the system configuration, but you might want to provide more flexibility in the configuration of your IT staff's systems. Use these categories to define and populate OUs in Active Directory."

Maintaining backups of your Group Policy Objects (indeed, as with all your system backups) is critical so that you won't have to shut down your domain controller if you should have to restore some GPOs.

Use The Right Tools

NetPro alone has several products available to aid your organization in managing its GPOs. GPOADmin (Group Policy Management & Administration) complements Microsoft's GPMC (Group Policy Management Console) and automates processes such as GPO version control, auditing and comparison, GPO lock/unlock for secure editing, advanced GPO searching and reporting capabilities, and GPO backup and link restoration (www.netpro.com).

Two other useful utilities that can help in the management of GPOs come from New Boundary Technologies. Using Prism Suite and Policy Commander, an administrator can accurately install and remove software, inventory computers, roll out security patches, and ensure that every computer is locked down to its desired security level. And, perhaps most importantly, an admin can get detailed reports on all of it, regardless of which organizational unit a particular computer resides in (www.newboundary.com). "And of

Go to Page 30

Tools Of The Trade

While free utilities such as GPEdit (Group Policy Object Editor) and GPMC (Group Policy Management Console), available through Microsoft, make the management of GPOs (Group Policy Objects) less burdensome, several other third-party tools are available to help manage the task.

NetIQ says its Group Policy Administrator can help you manage GPO changes in a "safe, offline environment without impacting the performance and availability of your live Active Directory environment" (www.netiq.com). This product offers flexible reporting, which can help you comply with auditors and regulations.

Symantec bv-Admin offers many features that help you manage Windows Active Directory's advanced features, such as enhancing GPO management by defining system configurations across the enterprise from a single central location (www.symantec.com).

While not a full-fledged GPO management utility, EZ GPO by Terra Novum will help you centrally manage power management settings on Windows client workstations using Group Policy Objects under Active Directory using Group Policy (www.terranovum.com).

Global DataGuard

NO RISK 30-DAY TRIAL. CALL
972-980-1444 ext. 226
www.Processor.com/GlobalDataGuard

INTRODUCING THE WORLD'S FIRST SECURITY RISK MANAGEMENT SOLUTION WITH INTEGRATED BEHAVIORAL ANALYSIS & CORRELATION

At the heart of GDG's Security Risk Management is a Proprietary Behavioral Correlation Engine that is actually the foundation upon which all other security applications are built.



Only GDG's Security Risk Management Solution includes:

- Intrusion Detection and Prevention
- Adaptive, Predictive Behavioral Analysis
- Network Access Monitoring
- Event and Global Threat Correlation
- Vulnerability Scanning
- Vendor Alerts
- Asset/Resource Database
- Security Dashboard (integrated SIM/SEM)
- SOC-in-a-Box Appliance
- Full and On-Demand Managed Services

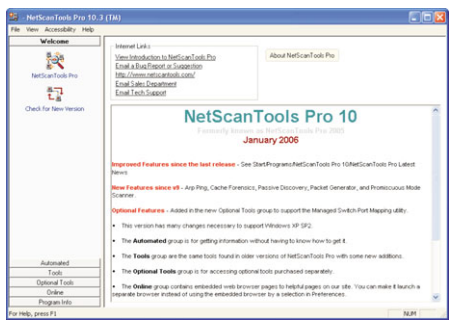
FLEXIBLE PURCHASE & SUBSCRIPTION PLANS AVAILABLE



Each layer complements and augments the others, with intelligent behavioral analysis and correlation capabilities comprising the GDG technology difference.

You will benefit from early warnings of threats that other solutions cannot see, far fewer false positives, cost savings, and the ability to manage security with one dashboard. You will also benefit from GDG's 24/7/365 and On-Demand Managed Security Services.

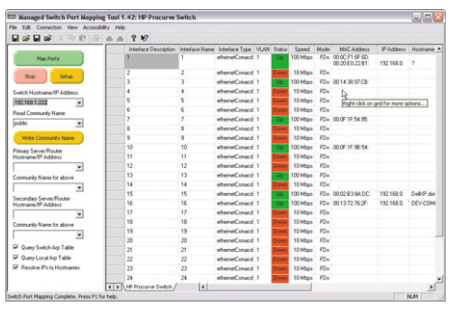
Northwest Performance Software, Inc.
A Leading provider of Network Information and Security Utilities



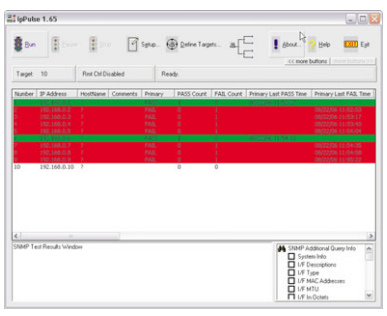
NetScanTools Pro
Multiple Solutions in One Package
- Network Information Gathering: Reconnaissance and Discovery
- Security Testing**:** Uses active and passive means to look for networked devices, exposed open ports, and network activity
- Training: Assists students in understanding various network protocols, methods of remote information gathering, and how networked devices expose informtion

www.Processor.com/NWPSW

Managed Switch Port Mapping Tool
Maps devices connected to ports of a managed network switch
- Communicates with a managed ethernet switch via SNMPv1/v2c and maps the physical port connections to MAC addresses.
- Queries several SNMP enabled devices to map the MAC addresses to IP addresses



www.Processor.com/NWPSW2



ipPulse
Monitors connectivity between your computer and a set of target computers
- ipPulse alerts you to failures using a variety of techniques ranging from audible messages to email and pager notification
- You can control ipPulse remotely by logging into Remote Control using any Telnet application
- ipPulse is designed to run unattended on a single workstation

www.Processor.com/NWPSW3

Free Demo's Available!
For More Information Call
(866) 882-3389

NorthWest Performance Software, Inc.

Drive Control

What's New In RAID Controllers

by Sandra Kay Miller

• • •

Speed and flexibility are where RAID controller manufacturers have been focusing their R&D dollars. With the latest round of products from industry leaders such as Adaptec and Tekram, user demands for solutions to meet their specific needs and growing storage are actively being addressed.

There are five types of RAID controllers (IDE, SCSI, SATA, SAS, and Fibre Channel), but they all perform the same function—managing a server's physical storage in a redundant array of independent disks. Additionally, there are numerous configurations associated with RAID systems (denoted by numbers), often determined by bus technologies and the controller's complexity.

Internal Controllers

As bus technologies mature, RAID controllers continue to meet the changes within the industry. Internal RAID controllers are often card-based within a server, but many today must be able to support an assortment of architectures and platforms, as well as provide functionalities for better management.

Both Adaptec and 3Ware offer PCI-based RAID controllers with an assortment of configurations. These range from Adaptec's basic 4-port half-sized PCI-X to SATA II controller, which offers RAID 0, 1, 5, and 10 and the Adaptec Advanced Data Protection Suite with RAID 1E, 5EE, 6, Copyback Hot Spare, and optional Snapshot Backup (www.adaptec.com) to 3Ware's 16-port half-sized PCI-X multilane SATA II controller providing an astounding number of advanced features including data protection with write journaling for nonredundant arrays and accidental drive removal, SNMP support, and SMTP support for email/pager notification (www.3ware.com).

In addition to support for physical drive arrays, controllers such as the LSI MegaRAID SATA 300-8X from Tekram are able to work in a virtualized environment where one large drive is broken into multiple logical drive units (www.tekram.com).

External Controllers

Newer advances in storage technologies such as network-attached storage or direct-attached storage generally house RAID controllers onboard instead of within the systems they serve.

Promise Technology recently introduced new products in its line of RAID systems. The VTrak E-Class SAS storage system is a high-performance solution consisting of a 2U, 12-drive, dual-controller SAS RAID 6 storage system (www.promise.com). Either SAS or SATA disk drives can be utilized in the same system thanks to VTrak's open architecture. Both types of drives are supported in active/active and failover/failback configurations thanks to twin controllers.

Aimed at the SME market, the VTrak Ultra 320 SCSI to Serial ATA RAID 6 storage system lets organizations take advantage of direct-attached storage for high-capacity applications. Similar to the E-Class, the Ultra is housed in a 2U rackmount chassis. There are two versions available—an 8-bay (M210p) and a 12-bay (M310p), both capable of trafficking data at 3GBps. Redundant cooling and power offers high availability, and battery backup ensures protected ECC cache memory.

The fastest growing segment of the storage market is network-attached controller-based systems primarily relying on Fibre Channel. These RAID systems are data center workhorses demanding speed, high availability, and throughput, often handling terabytes of data.

Users want more than just data storage; they want speed for on-demand access and flexibility for heterogeneous environments. Manufacturers are fulfilling customer requests with feature-rich RAID controllers aimed at providing efficient and affordable solutions for installations of varying sizes. P

RAID Controller Manufacturers

Manufacturer/URL	Product(s)	Features
3Ware www.3ware.com	9550SX Series	• Five models ranging from four to 16 ports • Logical units larger than 2TB can be divided into multiple units for legacy operating systems that are limited to a maximum of 2TB per logical unit • Multiple logical unit sizes and RAID levels on a single card • Multiple cards within a system for large storage requirements
Adaptec www.adaptec.com	Serial ATA II RAID 2420SA & 2820SA	• 4- and 8-port half-sized PCI-X 64-bit/133MHz host interfaces support up to 3GBps with hot spares • RAID level migration • Online capacity expansion • Optimized disk utilization • Support for S.M.A.R.T and SNMP
Promise Technology www.promise.com	VTrak Ultra 320 SCSI to SATA RAID	• 8- and 12-bay models capable of handling 3GBps • Predictive Data Migration detects potential drive failures and automatically migrates data to a healthy drive
Tekram www.tekram.com	LSI MegaRAID SATA 300-8X - SATA I and II compliant with eight ports	• 128MB ECC SDRAM • 1.5 and 3Gbps drive mode support • RAID levels 0, 1, 5, 10, and 50 • Online RAID level migration and capacity expansion and auto resume on array reconstruction • Up to 40 logical drives per adapter supported

SPONSORED LINKS

Adaptec Serial ATA 1420SA
Four Serial ATA 3Gbps ports; PCI-X 133MHz; low-profile form factor with Native Command Queuing; RAID 0, 1, and 10 for desktops, workstations, and entry-level servers
www.Processor.com/1420SA

Adjile
A leading manufacturer, integrator, and reseller of mass storage and tape backup solutions; offers SAN, NAS, and DAS products utilizing Fibre Channel, SCSI, ATA, and IP connectivity
www.Processor.com/Adjile

Buffalo Technology TeraStation NAS
Has four operational modes: Standard, Spanning, Mirroring, and RAID
www.Processor.com/Buffalo

LSI Logic MegaRAID SATA 300-8XLP
3Gbps 8-port SATA II RAID adapter offering data transfer rates of up to 3Gbps per port in a low-profile form factor
www.Processor.com/LSI

Group Policy Objects

Continued from Page 29

extreme importance to the SME market, all of these functions can be accomplished by just one administrator with a bare minimum of training, since our products are designed from the ground up to be easy to install, easy to use, and easy to administer," says Pearson.

Administrators can also create and edit GPOs using GPEdit (Group Policy Object Editor) and/or the free download GPMC, both available through Microsoft.

NetPro's ChangeAuditor, with its comprehensive GPO coverage and reporting, keeps managers in the know with real-time auditing and alerts on policy changes as they occur. In addition to other features, ChangeAuditor details all changes to Active Directory, GPO, Exchange, and File Server and includes a built-in alert library for easy reference. ChangeAuditor also deploys quickly, with no training costs; provides insight into approved and unapproved changes, fostering tighter internal controls; and reduces downtime, speeding repairs by auditing changes as they occur.

Also from NetPro is the DirectoryAnalyzer, which boasts real-time diagnostics and alerting for Active Directory, including replication, Operations Masters, Active Directory DNS functions, Domain Controllers, Global Catalogs, and application partitions. NetPro's DirectoryAnalyzer integrates with the company's other GPO solutions, ChangeAuditor and DirectoryTroubleshooter, and includes an expanded alert library and email notifications. P

Superior Appliance Solutions for OEMs and ISVs



www.pyramid-usa.com

Pyramid Computer is a leading supplier of branded appliance solutions for OEMs and VARS. We offer a complete range of design, maufacturing and logistics services that allow you to effortlessly deliver a superior product to customers on a world wide basis, and focus your attention on core business activities.

- **Quickly deploy an attractive high quality product with your own brand and image**
- **Minimize your efforts managing manufacturing, logistics and hardware support**
- **Reduce inventory costs, risks**
- **Demonstrable value even at low volumes**

pyramid computer

Pyramid Computer USA
Phone: (866) 745-3553
Email: info@pyramid-usa.com

iStarUSA
iStar, Good Start!

W SERIES CABINET

- **W** Cabinet Series
- **WM** Wall Mount Series
- **WO** Open Rack Series
- **WA** Rack Accessories

- Cabinet, Wallmount, Open-Frame Format
- Compatible to IBM, HP, and Standard Rackmount Chassis
- 6U, 9U, 15U, 22U, 36U, and 42U Size Available
- Perforated, Glasses, and Solid Door Option
- Full line of Accessories for Cabling, Power Strip, Shelving, and Rails
- OEM/ODM with Full Customization Capability

Rackmount cabinets by iStarUSA provide cost-effective and customized solutions that enhance system performance and manageability.



CALL TODAY!
1.626.303.8885

Please refer to our website for a full product listing. www.istarusa.com

PROCESSOR.COM

THE INSTANT ACCESS YOU NEED.



See all that's available today at www.Processor.com

Safe Storage

Perm-A-Store's Turtle Cases Stay Strong

by Robyn Weisman

• • •

GOLDEN VALLEY, MINN.,-based Perm-A-Store (www.turtlecase.com) is not known for having drool-worthy gear. You're not going to see its Turtle Cases featured in the latest issue of a cutting-edge hardware magazine or featured as an impulse buy at the local Best Buy. But then, transporting and storing valuable data isn't sexy. It's vital.

Alan O'Regan, vice president of sales and marketing at Perm-A-Store, says that a New Orleans-based company ordered 800 of its 9840 Turtle Cases designed to hold a total of 1,600 digital backup tapes the Friday before Hurricane Katrina hit the city, and according to O'Regan, all the data stored in these Turtle Cases survived intact.

Perm-A-Store came into being back in 1988, and its Turtle Cases were originally designed to store and transport digital tape. O'Regan and his partner Ken Schneider had been familiar with Perm-A-Store for years because both had worked for 3M and Imation, makers of storage media. Perm-A-Store was one of O'Regan's clients, and the company participated in several promotional opportunities with Imation. "Turtle Cases were a value add for our end users," says O'Regan.

O'Regan and Schneider purchased Perm-A-Store in early 2004 and immediately began to expand the company's distribution channels as well as its offerings into hard drive storage and document storage. "We felt like the company had value when we bought it, and it's doubled in the last two and a half years," O'Regan says.

The Hardest Shell

According to O'Regan, the basic Turtle Case is a double-walled box made of high-density polyethylene that protects data during transport. The external wall absorbs most of the impact if the box is dropped, much in the way a motorcycle helmet protects the rider's head, and the air space trapped between the two walls provides insulation from external temperature changes. Each box has a certain number of slots that are molded in precisely the size of the data cartridges being stored so that they do not rattle and potentially lose the stored data.

Most Turtle Case models do not use foam as an insulator. "Foam is a debris generator and degrades over time. This is particularly an issue with tape drives," says O'Regan.



Turtle Cases for external hard drives, "hot-swappable" hard drives, and drives housed in plastic cases do come with customizable foam cubes because they are not prone to the issues related to foam degradation that tape drives face.

Perm-A-Store is presently in development with IBM and Imation to create a new super Turtle design, in which impact protection material will be housed between the inner and outer walls of the box so that the drives inside float and better insulate against temperature changes. "It will offer superior impact protection without the exposure issues brought about by foam," says O'Regan. He says these Turtle Cases are still five or six months away and should be available around March or April.

Several accessories are available for Turtle Cases, including security seals that protect against tampering; a temperature tracker designed to monitor a case's temperature for up to three years; a temperature and humidity tracker that, in conjunction with software sold by Perm-A-Store, tracks both temperature and humidity; and two different sizes of padlocks for the cases.

For his part, O'Regan estimates that about 20% of Turtle Cases now go out with padlocks, as customers become increasingly security-conscious.

Permanent Data Storage

Although Turtle Cases can protect against heat, the basic Turtle Case is not fireproof. "For fireproofing you need concrete between lead walls, which eliminates portability," says O'Regan. However, Perm-A-Store does make a series of fireproof safes and media cabinets ranging from small safes with 0.26 cubic feet of space that can sit on a desk to its massive Data Commander 4623 Fireproof Media Safe that has almost 16 cubic feet of space and comes with an electronic lock. All of them offer Class 125 fire resistance.

The Increasing Need For Lock Boxes

Lockable Document Boxes are one of Perm-A-Store's latest additions. Sold in multiples of five, these secure boxes are not meant to replace the estimated 600,000 paper document storage boxes produced each month in North America. Perm-A-Store's Document Boxes target organizations that need secure paper data storage to stay in compliance with HIPAA, Sarbanes-Oxley, and other regulations that require the proper secure storage of confidential information. According to O'Regan, these boxes, not surprisingly, are popular with industries most affected by this legislation, such as financial institutions, hospitals, and law firms.

The boxes come in two colors: black and beige. Each box can hold letter- or legal-sized files, are watertight, and can be locked with either one or two padlocks, depending on a user's needs.

The Stakes For Data Get Higher

Perhaps the reason for Perm-A-Store's impressive growth is due to the increasing realization of data's importance—and the increasing amount of data that a single tape cartridge or hard drive can hold. O'Regan cites the disparity between tape drives, noting that a 3592 tape cartridge holds about 300GB of data, 1,500 times more than a similar-sized 3480.

Protecting data becomes ever more critical as drives balloon well into the terabyte range because of the density of the data. In other words, damaging the same area of space on a newer drive will obliterate significantly more information than it ever did before.

Where To Buy Your Turtle Cases

While Turtle Cases are available directly on Perm-A-Store's Web site, O'Regan says that 95% of the company's products are sold through distribution channels, mostly wholesalers, OEMs, and small dealers. "Whoever is selling tape also supplies Turtle Cases," O'Regan says. HP, for example, sells Turtle Cases as part of a storage drive kit that includes a cleaning cartridge and a backup manual. Imation and IBM also have OEM setups with Perm-A-Store.

PROCESSOR.COM

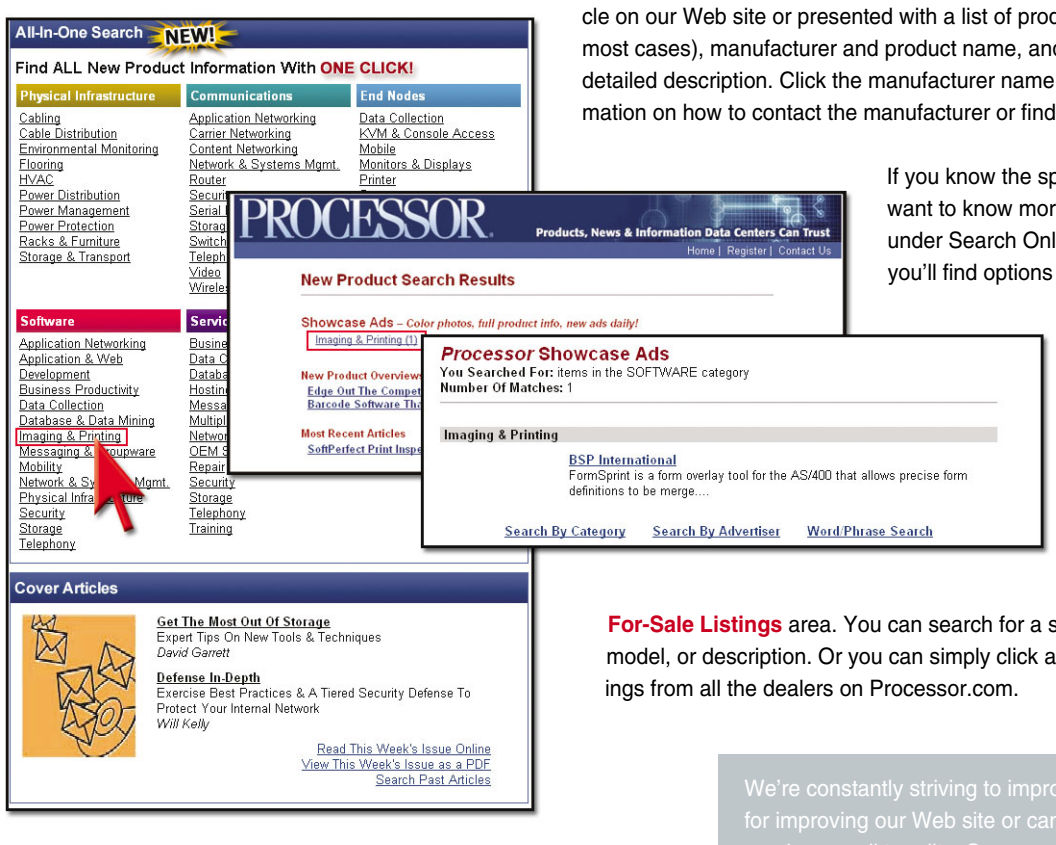
Processor.com Makes Finding Data Center Products Simple



Finding the right product for your data center needs starts right on our home page, www.Processor.com. Our All-In-One Search area makes it easy to find detailed information on products with just one click.

Categories are sorted under five areas: Physical Infrastructure, Communications, End Nodes, Software, and Services, with subcategories listed in alphabetical order under each category.

Each resulting page displays all the information that's on our Web site regarding that product category. Information is sorted by **Product Showcase** (concise product listings that include product photos and a brief description), New Product Overviews (more detailed product-focused editorial articles), and Most Recent Articles (more general articles covering products and information related to that category).



Click the article or information link you're interested in, and you'll either be taken to the article on our Web site or presented with a list of products. The product list shows a photo (in most cases), manufacturer and product name, and the first two lines of the product's detailed description. Click the manufacturer name link to view the full description and information on how to contact the manufacturer or find even more information about the product.

If you know the specific product name or manufacturer you want to know more about, click the Showcase Ads link under Search Only in the **All-In-One Search** area. There you'll find options to search By Advertiser and By Word/Phrase Search. **By Advertiser** lets you quickly link to all products offered by a specific manufacturer. **By Word/Phrase Search** lets you search for specific products, features, or other keywords.

If you're looking for new, used, or refurbished equipment from dealers across the United States, check out the **Dealer For-Sale Listings** area. You can search for a specific part number or enter a make, model, or description. Or you can simply click a manufacturer name to see equipment listings from all the dealers on Processor.com.

We're constantly striving to improve our tools. If you have any suggestions for improving our Web site or can't find the information you're looking for, send an email to editor@processor.com or give us a call at (800) 544-1264.

COMPUVEST.COM© 888.644.7017

Home | My Account | Sign Out | View Cart

User: Guest | Items: 0, Total: $0.00

All Products | Notebooks, PDAs | Networking | Printers | Electronics | Cameras | Computers | Software | Weekly Specials | Clearance | Product Request | Extended Warranty

With 10 Years of Experience in the E-Commerce Market, We Offer:

- 50,000 unique products ready to ship today
- 120 unique categories of computer and consumer electronic products
- 97% "same day" order fulfillment rate
- Fast and reliable return and exchange process
- Same Day Processing time for Government and Educational Orders
- International Shipping
- Wholesale price discounts
- Largest selection of hard-to-find and obsolete products
- Telephone sales and tech support

Corporate, Gov't & Educational PO's Welcomed.
GSA Contract GS-35F-0097M

MONITORS / PROJECTORS

15 / 17"" Hitachi LCD Monitor Black .....$150 / 170
17" HP / Compaq 1740 LCD Monitor Black $195
17" Sharp LCD 1280x1024 0.26mm Black / White $161
3M Company LCD Projector 1200ANSI 5.5LB's $680
HP Digital Projector VP6121 DLP 1024x768 2000ANSI ...$665
HP Digital Projector xp8020 DLP 3100 ANSI Lum $1940
HP Home Cinema Digital Projector ep7110 DLP Projector L1688A $710

NOTEBOOKS

HP Pavilion dv1000 P-M
2.0GHz 512mb 100gb DVDRW 14" $859
HP Pavilion zd7000
P4 3.2GHz 512mb 100gb DVD+RW 17" $1,450
HPnc8200 PM
1.7GHz 40gb 512mb DVD-CDRW WLAN 15.4WXGA XP ..$655
HPnc6000 P-M
1.7GHz 60gb DVD+RW 14" XP $750
HP Presario V2405 Turion 1.8GHz 60gb DVD+RW 14" ...$655

We Have a Large Selection of Notebooks
Low Price Guaranteed!

SYSTEMS / SERVERS

IBM eServer 326 8848 Rack Opteron
2GHz 1GB SCSI Hot-Swap 1U $859
IBM xSeries 445
RSAII-EXA 8870 Rack Xeon 3GHz (2P) 2GB $6000
HP ProLiant ML350 G4
Tower 1 x Xeon 3.4GHz RAM 1GB $980
HP WS xw4300
3.2GHz 512MB 80GB DVDRW $1000

DIGITAL CAMERAS

HP PhotoSmart 735XI 3.0MP 3x optical $74
Sony Cyber-shot 5.1 MP 3x Optical DSC-W5 .....$198
Vivitar Vivicam 10/ ViviCam 20 silver/blue/Red $10/11
Vivitar ViviCam 3915 Digital Camera 5.0MP x2 .....$71
Samsung Digimax 4500 4.1MP 3x Optical $111
Vivitar ViviCam 3340 1.3MP/ViviCam 3695 2.0MP $16/25
Creative PC-Cam 900 2.1 MP Flash $35
Logitech QuickCam WebCam w/ Mic USB $17

PDAs / PDA Accessories

HP IPQ H1945/HX2410 PDA USB $265/160
PALM Zire 31 PDA / P80708US $26
HP Mirco Keyboard / FA162A#AC3 .....$16
TARGUS Universal WI-FI Keyboard $38

We handle full line of new and refrubished CISCO networking equipment.

HARD DRIVES - IDE & SCSI

IDE Hard Drives
1 - 30gb IDE .....$ Check Web
40 / 80gb IDE 5400/7200RPM .....$ 30 / 47
120 / 160gb IDE 5400/7200RPM .....$57 / 67
180 / 250gb IDE 7200RPM .....$ 85 / 181
SCSI Hard Drives
18-36gb U160 10K SCSI 80pin / 68pin / FC .....$36 / 69
18-36gb U320 15K SCSI 80pin / 68pin /FC .....$57 / 83
73-146gb U160/U320 10K SCSI 68pin, 80pin /FC ..$129 / 177
73-146gb U320 15K SCSI 68pin, 80pin/ FC .....$179 / 579
ST336607FC / ST3146807LC / MAU3147NP $79/239/567
300GB U320 10K SCSI80pin / 68pin .....$ 503/769
Notebook HDDs
HDD under 20gb .....Check Web
20-60gb 2.5" Toshiba / Fujitsu/ Hitachi / WD .....$40 /57
80-120gb 2.5" Toshiba / Fujitsu / Hitachi / WD $83/129
40-120gb 2.5" SATA Hitachi / Seagate / Fujitsu $66/195
20-60gb 1.8" ZIF / PCMCI Toshiba / Hitachi $59/169

Visit Our Web Site For
Complete Selection of Hard Drives!

TAPE DRIVES

EXABYTE / QUANTUM / IBM
EXB-8900 Tape Drive 8mm Tape 20GB/40GB Int SCSI ...$375
35/70GB Quantum DL7000 Int. SE SCSI $280
IBM Tape Drive 100GB/200GB Internal SCSI 00N8016 ....$1080
HP / COMPAQ
StorageWorks ESL9595 Tape Drive Lib 330833-B21 ..$14,000
20/40GB Compaq DLT Drive, DLT 1x20GB/40GB Ext. ...$380
20/40GB Compaq Business StorageWorks DAT Int. Auto $425
20/40GB HP DLT4000 SCSI SE Narr Sure Store DLT40R .$390
HP SureStore DLT 80K Tape Drive SCSI LVD Rack $780
40/80GB Hp/Compaq DLT VS80 Int. SCSI LVD/SE $780
200/400GB StorageWorks Ultrium 460e TD LTO Ext. $1845
100/200GB StorageWorks Ultrium 230i TD LTO Int $1600
400/800GB Storageworks Ultirum 960 Tape Drive SCSI $2,150
200/400GB StorageWorks Ultrium 48 Ext. LTOUltrium .$1600

We sell HP, Compaq, IBM.
Call us or go to our site for more!

OPTICAL DRIVES

Sony 650MB Magneto Optical Drive SCSI 5.25" $7
48x HP CD / Floppy Combo Internal HP DL320 G2 .....$31
4X4X24 HP CDR-W EIDE Internal D4398A $11
52X32X52 Memorex CDR-W External USB 2.0 .....$26
52X24X52X16 Iomega CDRW/DVD External USB 2.0 .....$40
10X HP DVD-Rom SCSI Internal C7499A $160
6X HP DVD-Rom IDE Internal For OmniBook $90
2.4x24x24x8 Samsung CDR-W / DVD Internal Slim $37

FLASH MEMORY/USB PEN DRIVE

256 / 512 / 2gb /4gb Compact Flash $13/19/49/91
512 / 1gb /2gb Memory Stick .....$3 / 52 / 88
512mb / 1gb / 2gb / 4gb Secure Digital .....$19 / 25 / 49 / 96
512mb/ 1gb / 2gb Multimedia Card .....$29 / 56 / 97 / 235
128mb / 256mb / 512mb USB 2.0 Flash Drive ...$14 / 15 / 19
1gb / 2gb / 4gb / 8gb USB 2.0 Flash Drive ....$61 / 118 / 228
4gb / 8gb / 16gb IDE Flash Drive .....$199/ 335 / 565

We Carry all Types and Brands of MEMORY AND CPUs
Please visit our WEB to check

ZIP DRIVES

2.2gb Castlewood ORB Intern/External SCSI .....$15 /31
750mb Iomega ZIP Drive External FireWire $59
250mb Iomega ZIP Drive Internal $31
250mb HP Zip For E700 V300 N400C N600C N610C $18

VIDEO CARDS

Matrox
16 / 32mb Matrox G450 Dual AGP .....$6 / 30
32mb Matrox G450 / G550 Dual Head PCI .....$78 / 80
32MB Matrox G200 Quad PCI $148
64mb Parhelia P650 / P750 AGP .....$125 / 185
64mb Matrox G450 MM / Qid Quad MM PCI .....$565 / 575
nVidia
16MB / 32MB Riva TNT / Vanta .....$8 / 14
32MB / 64MB Beforce2 AGP .....$11 / 17
64MB / 128MB Geforce4 TI4200 AGP .....$23 / 39
64MB Quadro4 280NVS / 400NVS PCI $125 345
64MB Quadro4 200NVS / 280NVS PCI-Express .....$70 /99
64MB Quadro4 000NVS / 280NVS AGP .....$30 / 45
64MB Quadro4 380NVS / 750NVS AGP .....$35 / 215
64MB PNY Quadro4 700XGL / 500XGL PCI .....$36 / 42
128MB Quadro4 900XGL / 980XGL AGP .....$140 / 399
128MB Quadro FX1000 / FX1100 AGP .....$140 / 399
128MB Quadro FX1300 / FX 1400 .....$399 / 550
256MB Quadro FX3000 / FX3400 .....$299 / 989
256MB Quadro FX3450 / FX4000 .....$885 / 1090
256MB Quadro FX4400 / FX4500 .....$1290 / 1450
256MB GeForce FX5600 / FX5700 AGP $55
128mb 3Dlabs Wildcat 4 7110 AGP $250
Appian
64MB Radeon VE Rushmore Quad PCI $34
64MB Appian Radeon Typhoon VE AGP / PCI $129
64MB Appian X4 DVI-I Quad Monitor PCI $189
128MB Appian Phoenix Radeon 9000 QD PCI Quad $410
ATI / Powered by ATI
16MB / 32MB AT Rage .....$9 / 14
32MB / 64MB ATI Radeon 7000 PCI .....$18 / 35
64MB / 128MB Radeon9200 Pro AGP .....$17 / 32
64MB / 128MB Radeon X300 PCI-E .....$21 /38
128MB Radeon 9600 XT 9600 AGP .....$70 / 37
128MB Radeon 9700 Pro / 9800 Pro AGP .....$78 / 91
128MB ATI V3100 / V5100 PCI-E .....$99 / 355
256MB ATI Fire GL V7100 PCI-E $535
256mb Radeon X850 XT Platinum VIVO PCI-E $285
256MB ATI Fire GL X2 / X3 AGP .....$285 / 615

PRINTERS / SCANNERS / ACCESS

HP 2500CM InkJet Pro Color $85
HP DeskJet 9680 ColorInkJet / 5850w Color InkJet ..$550 / 95
HP PhotoSmart 8150 / 8450 Photot InkJet Printer ....$54 / 85
HP DeskJet 5440 Photo InkJet Printer $29
Zebra/Eltron LP2348 Plus Label Printer 120618-001 .....$291
HP LaserJet 4200n 220V $582
LaserJet 4250DTNSL 220V Laser Printer $799
HP LaserJet 4250TN220V/ LaserJet 4350N 220V ...$750 / 75
HP 5BIN Mailbox w/ stapler for LJ 8000/8100/8150 .....$550
HP 9200C Digital Sender Flatbed/Sheetfed Scanner Q5916A $2050

888-644-7017
Fax: 425-251-5000

NETWORK PRODUCT

3COM Modules / Hubs / Switches
3C16686, 3C16805, 3C16810 .....$12 / 46 / 65
3C16960, 3C16971, 3C16975 .....$32 / 75 / 180
3C16976, 3C16977, 3C16610 .....$125 / 92 / 130
3C16611, 3C16665A, 3C16951 .....$75 / 580 / 50
3C16954, 3C16980, 3C16980A .....$73 / 90 / 145
3C17100, 3C17111, 3C17131 .....$285 / 390 / 575
3C17203, 3C17204, 3C17205 .....$556 / 2377 / 1325
3C17221, 3C17701, 3C17711 .....$205 / 1185 / 700
3C17706, 3C17712 3C32700A .....$3895 / 2605 / 850
3CGBIC91, 3CGBIC92, 3CRWE825075AUS ..$130 / 185 / 195

HP / HP Jet Direct Print Servers
J3112A / J3113A / J3110A .....$9 / 59 / 73
J3111A / J4169A / J2550A .....$38 / 200 / 27
J4100A / J4101A / J4106A .....$80 / 181 / 145
J6057A / J7934A / J7942A .....$173 / 383 / 104
J2591A / J3258 / J2591A .....$58 / 81 / 58
J3265A / J4154A / J4110A .....$132 / 36 / 600
J4111A / J4113A / J4844A .....$48 / 175 / 850
J4845A / J7934G / J3263A .....$1727 / 210 / 179
J4135A / J6044A / J3258B .....$114 / 154 / 89
J6035C / J4102B / J4121A .....$129 / 106 / 534
J4167A / J3258A / J2556B .....$46 / 81 / 89

QLogic
QLA220033 / QLA220066 .....$170 / 90
QLA2312F / QLA2200F66 .....$450 / 250
QLA210033 / QLA210066 .....$120 / 260
QLA2202FCK / QLA2342 .....$1320 / 1035
LP10000E / LP8000 .....$749 / 80

Cisco Routers / Modules
Switch WSC295012 / WSC2955S12 .....$550 / 1660
Routers CISCO1721 / CISCO2612 .....$650 / 2000
Routers CISCO7206RF / CISCO3845 .....$2687 / 9400
Modules WS-X2861 / WSX5410 .....$100 / 660
GIGABIT Module WSG5486 / WSG5487 .....$ 70 / 230
LAN Adapter GLCSXMM / GLCLHSM .....$100 / 120

HP StorageWorks ESL9595 P/N 330833-B21 External Tape Library 400 Slots



MSRP $112,000
CompuVest Price . . $67,000

PROCESSOR®



Subscribe Today!
Call (800) 819-9014
or
Subscribe Online!
Go to www.Processor.com

360 Technologies **HP Sales and Rentals**

Toll Free: 888-883-0360

HEWLETT PACKARD Channel Partner

BUY • SELL • RENT • LEASE • REPAIR

• SPECIALS •

C6751A	OfficeJet K80XI	$85	Q1273A	DesignJet 4000 42”	$8,995
C8392A	7110XI AIO	$145	C1316A	9100C Digital Sender	$1,195
C9660A	LaserJet 4600	$750	Q5916A	9200C Digital Sender	$1,975
C6075B	DesignJet 1550CM+ 36”	$6,995	C6074B	DesignJet 1050C+ 36”	$5,495

Color LaserJets

C3985A	LaserJet 8500DN	$1,895
C4089A	LaserJet 8000DN	$495
C9661A	LaserJet 4600DN	$750
C9795A	LaserJet 2500L	$345
C7086A	LaserJet 4550N	$545
C7087A	LaserJet 4550DN	$650
C7098A	LaserJet 8550DN	$1,495
C7131A	LaserJet 5500N	$2,350
C8546A	LaserJet 9500N	$4,750
C8547A	LaserJet 9500HDN	$5,500
C9658A	LaserJet 5500DTN	$2,495
C9659A	LaserJet 5500HDN	$2,795
Q1320A	LaserJet 3500N	$695
Q1323A	LaserJet 3700N	$1,295
Q2488A	LaserJet 1500L	$395
Q3670A	LaserJet 4650DN	$2,095
Q3702A	LaserJet 2550L	$275
Q3716A	LaserJet 5550DTN	$3,375

Plotters

C4709A	DesignJet 750C+ 36”	$1,895
C3198B	DesignJet 755CM 36”	$2,095
C7789C	DesignJet 800PS 42”	$4,795
C6075A	DesignJet 1055CM 36”	$4,995
C4703A	DesignJet 2000CP 36”	$1,995
C6019A	DesignJet 5000PS 42”	$5,295
Q1254V	DesignJet 5500PS 60”	$11,995
Q1274V	DesignJet 4000PS 42”	$10,995

Call for all New and Used HP Equipment!

LaserJets

C2001A	LaserJet4	$175
C2037A	LaserJet 4+	$195
C2039A	LaserJet 4M+	$325
C3166A	LaserJet 5SI	$495
C3167A	LaserJet 5SI MX	$495
C3916A	LaserJet 5	$250
C3917A	LaserJet 5M	$295
C4110A	LaserJet 5000	$695
C4118A	LaserJet 4000	$295
C4120A	LaserJet 4000N	$325
C4252A	LaserJet 4050T	$395
C4254A	LaserJet 4050TN	$445
C4265A	LaserJet 8150	$595
C4266A	LaserJet 8150N	$595
C4267A	LaserJet 8150DN	$795
C8049A	LaserJet 4100	$495
C8050A	LaserJet 4100N	$595
C8051A	LaserJet 4100TN	$695
C8052A	LaserJet 4100DTN	$895
C8521A	LaserJet 9000DN	$2,795
C8253A	LaserJet 9000MFP	$4,795
C9124A	LaserJet 3300MFP	$325
C9148A	LaserJet 4100MFP	$1,295
Q1860A	LaserJet 5100	$895
Q1861A	LaserJet 5100TN	$1,095
Q2425A	LaserJet 4200	$695
Q2426A	LaserJet 4200N	$795
Q2428A	LaserJet 4200DTN	$1,295
Q2432A	LaserJet 4300N	$1,095
Q3723A	LaserJet 9050DN	$2,995
Q3942A	LaserJet 4345MFP	$2,250

- All above equipment is refurbished and carries a 90-day parts & labor warranty.
- Visa, MasterCard & American Express accepted.
- Many orders shipped the same day!

360 Technologies Inc.
15401 Debba Drive Austin, TX 78734
www.360tech.com
Info@360tech.com

Toll Free: 888-883-0360 Tel: 512-266-7360 Fax: 512-266-7366 IM: HPat360

EVOLVING SOLUTIONS

IBM Business Partner

IBM Certified Specialist

Optimizing Your Technology Investment with “ESI Performance”

- Experience
- Synergy
- Innovation

NetApp The evolution of storage.

VERITAS

ORACLE

Cisco Systems

IBM RS/6000 pSERIES
ibmsales@evolvingsol.com
- Enterprise Back-up & Recovery Services
- New and Re-Certified Equipment Options
- Hardware, Software and Professional Service
- SAN and NAS Sales and Technical Expertise

SUN MICROSYSTEMS
sunsales@evolvingsol.com
- Oracle and Veritas Certified Reseller
- Sun-Certified Technical Staff
- Workstations to Enterprise Class Servers
- Disaster Recovery Service Provider

HP 9000
hpsales@evolvingsol.com
- HP-Certified Technical Staff
- Flexible Financing Alternatives
- Veritas and Tivoli Implementation Expertise
- Workstations, Servers, Parts and Peripherals

SAN SOLUTIONS
sansales@evolvingsol.com
- New and Re-Certified Brocade, McData Reseller
- SAN Certified Technical Staff
- SAN Design and Professional Services
- SAN Configuration and Qualification Lab

CISCO SYSTEMS
ciscosales@evolvingsol.com
- Authorized Cisco Reseller
- Cisco-Certified Technical Staff
- Network Design and Professional Services
- Switches, Routers, VPN, Securtiy, Access Products

800.294.4362
www.evolvingsol.com
3989 County Road 116 • Hamel, MN 55340
Main: 763.516.6500 • Fax: 763.516.6555 • sales@evolvingsol.com

Find What’s New At Processor.com

Processor’s dedication to the data center/IT industry extends far beyond this weekly print publication. Our Web site, www.processor.com, has a number of great features you can rely on to help simplify your technology and product research and buying decisions.

All-In-One Search

The All-In-One Search area on our Web site, www.Processor.com, makes it easy to find detailed information on products with just one click. Simply find the product category you need (categories are sorted under five areas: Physical Infrastructure, Communications, End Nodes, Software, and Services) and click the link.

Each resulting page displays all the information regarding that product category. Information is sorted by Product Showcase (concise product listings that include product photos and a brief description), New Product Overviews (more detailed product-focused editorial articles), and Most Recent Articles (more general articles covering products and information related to that category).

If you know the specific product name or manufacturer you want to know more about, click the Showcase Ads link under Search Only in the All-In-One Search area. There you’ll find options to search By Advertiser and By Word/Phrase Search. By Advertiser lets you quickly link to all products offered by a specific manufacturer. By Word/Phrase Search lets you search for specific products, features, or other keywords.

My Personal Library

When browsing the editorial archive, did you find an article that you want to be able to easily refer to later? Click the Add To My Personal Library link in the upper right of the article page (you must be logged in to Processor.com to see the link). You can enter a folder name and a brief note about the article for later reference.

Cover Articles

Link right to the two cover articles from the most recent issue, view the current issue’s electronic table of contents with links to all articles, view the current issue as a PDF, or search past issues. When searching past issues, you can either perform a keyword search or see a list of all issues or all articles in the archive. Every article we’ve written is archived on the site, and most issues have a PDF version available.

Post A Free . . .

Have a computing product you want to sell or buy? Get it done by posting a free For-Sale Listing or a Want-To-Buy Message. Your Want-To-Buy Message will be automatically sent to our dealers and resellers that offer the product you’re looking for.

Subscription Headquarters

Go here to update your address or start receiving your own weekly copy of *Processor*.

Dealer For-Sale Listings—Used, New, Refurbished

If you’re looking for our searchable collection of thousands of products for sale, this is the place. Search for a part number; enter a make, model, or description; or pick a manufacturer from the list.

Advertising

If you’re a manufacturer, reseller, or dealer and want to get your message out to thousands of qualified data center and IT professionals each week, check out the online Media Kit or enter your contact information to have one of our advertising reps contact you.



dbg Digital Brothers Group
DEC-Compaq-Cisco-Sun-SGI
770-931-7732
Fax 770-931-9416
www.dbgweb.com
salesp@dbgweb.com

AlphaServer GS160 Model 16
Base System for OpenVMS

- DY-160CG-AA
- One Alpha 21264 Processor 1224 MHz
- Four Quad Building Blocks
- One 14-Slot PCI Shelf
- OpenVMS Operating System License

ALSO AVAILABLE:
- Additional 1224 MHz CPU w/SMP
- Additional Memory
- Additional PCI Shelves
- Additional PCI Options

Call or E-Mail For Pricing

2 Systems In Stock!

Authorized COMPAQ® Reseller

WE WILL BUY YOUR USED HARDWARE!

WRCA.NET
800-699-9722
Worldwide Provider of Network Hardware since1981

- 3COM
- ADC/Kentrox
- Adtran
- BAT Electronics
- Bay Networks
- Cabletron
- Cisco
- Commworks/US Robotics
- Digital Link
- General DataComm
- Hull Speed
- IBM
- Larsom
- RAD
- Verilink
- Tylink
- SynOptics
- Micom
- Motorola/UDS/Codex
- Multitech
- NBase Xyplex
- Nortel Networks
- Packeteer
- Paradyne
- Patton
- Racal
- ...and more!

Selection sets us apart.

WR Consultant Associates, Inc. is committed to provide ALL your network hardware needs. Rely on our expertise to provide End-to-End WAN Solutions.

Call us today for YOUR solutions

Visit us online for weekly specials!
www.wrca.net

WE PURCHASE MEMORY!
Sell your excess or obsolete DRAM based inventory simply, efficiently and with maximum recoveries.
Micro Memory Bank, Inc.
www.memorybank.com
215.643.6000
ISO 9001 : 2000 Certified

We Recycle
PC's and Other related Electronics

We clear hard drive data with the best software available so you can be assured sensitive data is not recoverable.

We will arrange to pick up your old electronics in a timely manner.

Butler Distribution

Please email us today!
stanbutler2000@yahoo.com

We purchase higher end equipment

Due to small quantities some pickups may not be feasible!

Vibrant October Specials:

IBM p5 520 w/2-way 1.9GHZ Pwr 5+ proc, 1GB mem, 73GB 10k drive :: $8,000
Cisco DS-C9509 Cisco Director Switch, dual sup, dual pwr :: $8,500
HP DL385 Operton 280, dual core 2.4GHz, 4GB, 4x146GB :: $5,600
Sun V240 Server, 2x1.5GHz CPUs, 2GB, 2x73GB :: $5,600
A6098A 4GB HD Syncdram mem, HP RX76/86 :: $1,500
Emulex LP9002L-E 2GBps PCI FC HBA :: $550
FAStT FC 5222 39M4590 new sealed :: $495

VIBRANT | TECHNOLOGIES
WWW.VIBRANT.COM
Buy | Sell | Lease | Repair
952.653.1700 :: SALES@VIBRANT.COM

PRINTRONIX®
QMS®
New & Refurbished
PRINTERS
SPARE PARTS • EXCHANGES • SUPPLIES
TW-AX • CO-AX • IGP™
QMS® Magnum®
Data Reliance Corporation
"Your Reliable Printer Source"
www.datareliance.com
Ph: 574-935-9550 Fx: 574-935-9555

E.L.I.
Call for a Quote Today!
- Quick Shipping
- In-house Technical Staff
- International Shipping

Phone 800-447-1156
617-547-4005
Fax 617-354-1417
E-mail sales@eli.com

288 Norfolk Street
Cambridge, MA 02139

For our complete online catalog go to www.eli.com

SUN MICROSYSTEMS
Sun Fire
Sun Blade
StorEdge
3310/3510 Array
Sparcs
CPUs
Drives
Memory
Entry/Midrange Servers

DEC/HP
Alpha
DecServers
Comm. Gear
VAX
Memory/Disks

CISCO
Routers
Catalyst Series Switches
Network Modules
Pix Firewalls
Port Adapters
VPN+ Security Product

www.bltrading.com
- $2M in Inventory: SAN components, Disk Drives, HBAs, Switches, Tape Drives
- Storage Subsystems, Arrays, and more!
- Same-day shipments!
- EMC Certified Sales Professionals
- In-house integration staff
- Fully-tested equipment with manufacturer class warranties
- We BUY excess equipment!

Contact Michael Moore for more information:
mmoore@bltrading.com
781-982-9664
BLTrading One Source...TOTAL Solution
145 Webster Street, Hanover MA 02339 www.bltrading.com

$$ CASH $$ $$ CASH $$

media recovery
Datacenter products and services

WANTED!

Magnetic Tape Media:
9940 • 9840 • 3590 • LTO • SDLT

Please Contact
Al Bass
214-905-1882
abassignani@mediarecovery.com

Visit our new web site at: www.mediarecovery.com

$$ CASH $$ $$ CASH $$

CISCO NORTEL
NEW • USED / BUY • SELL
NORTEL
AIRMAGNET
FORTINET
airwave
bluesocket
Cisco Systems Registered Partner
symbol The Enterprise Mobility Company™
Special
Nortel BPS 2000 switch
NLE Good as New $395.00

- Trade-ins welcome!
- Authorized service contracts available
- Full Warranty on all products!
- Role-Based networking experts!
- Proactive threat management!

NLE
888-8LANWAN
Call for Free Quote! (888-852-6926)
801-377-0074
Visit Us On the Web At: www.nle.com Fax Equipment List To 801-377-0078

Regent Sales Inc.
www.regentsales.com
800-657-9555
Phone: (817) 249-9950
Fax: (817) 249-9069
Email: Sherisa@regentsales.com

BULLSEYE!

15K, 146GB HDD Pluggable	347708-B21	$495.00
15K, 72GB HDD Pluggable	286778-B22	$319.00
15K, 72GB HDD Pluggable	3R-A3851-AA	$325.00
10K, 300GB Pluggable	350964-B22	$575.00
10K, 300GB Pluggable	3R-A4952-AA	$595.00
10K, 146GB Pluggable	286716-B22	$345.00
10K, 146GB Pluggable	3R-3841-AA	$345.00
HP MSL6000 ULTRIUM 460 DRIVE AD605A		$2,900.00
FCA2214 2GB 64BIT 133MHZ PCI-X 281541-B21		$685.00
48 Port 10/100 Switch Enhanced OsWS-C2950G-48-EI		$2,345.00
24 Port 10/100 Switch Enhanced OsWS-C2950G-24-EI		$1,370.00
LTO3 Data Cartridges D2406-LTO3		$71.85
SDLT Media Bar Code Reader SG-XBARCODES-L8		$825.00

Regent Sales, Inc., Your "On Target" Choice For New, Used & Refurb Equipment
IBM Business Partner authorized reseller hp invent COMPAQ ProLiant • Alpha • StorageWorks • Servers Cisco Systems Reseller
Quality • Integrity • Value

NCR Systems, Parts and Upgrade Specialists
NCR
WE BUY AND SELL
TallyGenicom OKI PRINTRONIX
VECMAR Computer Solutions www.vecmar.com
New and Refurbished Okidata and Tally-Genicom business printers
Wyse Winterm
New and Refurbished Wyse Winterm Thin Clients
TOLL-FREE 800-457-8499

HEWLETT® PACKARD

GPS GLOBAL PRINTER SERVICES INCORPORATED

Global Printer Services
5980 Executive Dr.
Madison, WI 53719

www.globalprinter.com **www.HP4Sale.com**

HP LJ 1100	$159	HP LJ 4250N	$975
HP LJ 1300	$249	HP LJ 4500 series	$1,050
HP LJ 2100	$199	HP LJ 4550 series	$1,150
HP LJ 2300	$399	HP LJ 4600	$1,095
HP LJ 2300D	$479	HP LJ 5000	$499
HP LJ 2300DN	$599	HP LJ 5000N	$799
HP LJ 4000	$275	HP LJ 5Si	$349
HP LJ 4000N	$399	HP LJ 5SiMx	$439
HP LJ 4000T	$300	HP LJ 5SiNx	$399
HP LJ 4000TN	$449	HP LJ 8000	$399
HP LJ 4050	$265	HP LJ 8000N	$499
HP LJ 4050N	$389	HP LJ 8000DN	$659
HP LJ 4050T	$329	HP LJ 8100	$569
HP LJ 4050TN	$479	HP LJ 8100N	$669
HP LJ 4100	$359	HP LJ 8100DN	$869
HP LJ 4100N	$499	HP LJ 8150	$599
HP LJ 4200	$649	HP LJ 8150N	$799
HP LJ 4250	$829	HP LJ 8150DN	$849

800 - 588 - 3554 or 608 - 268 - 4300
Fax: 608-268-4343 • E-mail: sales@globalprinter.com

EQUIPMENT MANAGEMENT, INC
Phone: (978) 534-2074
Fax: (978) 534-5574
Email: rob@emisolutions.com rico@emisolutions.com
WEB: www.emisolutions.com
42 Jungle Road, Leominster MA 01453
****** SWITCH SPECIALS *****

401930-001 Motherboard Switch $1795
A7537A $12900 HP STRKS SWITCH 4/32
254136-001 $5900 San Director
311242-001 $12500 San Switch
283056-B21 $3500 SAN switch 2/16
287055-B21 $5900 SAN Switch 2/16
A7537A $13900 HP STRKS SAN Switch 4/32
A4688A $5900 HP Surestore E Bridge FC 4/1
311026-b21 $17500 SAN Switch Power Pack

• Immediate Availabiltiy
• Lowest Prices • Blind Shipment

• TERMINALS • MEMORY • PRINTERS
• DRIVES • PERIPHERALS • CPU'S
• CONTROLLERS and MORE
A minority owned business

BUY, SELL, TRADE ALL BRANDS.....!

ZEROWAIT

In July 2006, **NETAPP will no longer support** F720 and F760 Filers!

Zerowait provides Network Appliance customers with a reliable alternative to NetApp's high cost of legacy service, support and upgrades.

Call us today for a competitive quote!



Processor Special
F840 w/ NFS SW--
$14,500 per head
Buy two heads and get Cluster SW licenses FREE!

WWW.ZEROWAIT.COM
Toll-Free: 888.811.0808

www.ccny.com

Computer Connection of Central New York, Inc.

For all your IT Network & Security Needs

BUYS / SELLS / TRADE-IN / SERVICE / NEW / USED

Sun microsystems COMPAQ CISCO SYSTEMS FORTINET ArrayNetworks BLUEARC

800-566-4786

purchasing@ccny.com sales@ccny.com

ISM INTERNATIONAL SYSTEMS MANAGEMENT INC

800.421.6572
Ph: 770.840.8994 • Fax 770.840.9228
www.ismweb.com • info@ismweb.com

IBM iSeries • IBM pSeries • Sun • HP9000 • Cisco

We Buy, Sell, Lease and Provide Short and Long Term Rentals
90 Day Warranty on All Refurbished Systems, Memory, Disk & Parts
Call Us To Save Up To 90% On Used Certified Equipment!

CALL ISM FOR ALL YOUR MIDRANGE COMPUTER NEEDS!

WE BUY TAPE!

DLT-LTO-AIT-AME-DDS-QIC-3480-3590-9840-Etc.

New & Used - All Types of Data Tape Media
Certified DATA DESTRUCTION Assured
World's #1 Tape Buyer is The Data Media Source
Highest values paid - Free pick-up at your site
1-800-252-9268 www.datamediasource.com



We Buy Used Cell Phones
& pay up to **$50** for each phone!
Some phones have no value. See current purchase price list for individual model prices at www.pacebutler.com
www.pacebutler.com
1-800-248-5360 • (405) 755-3131

abacus SOLUTIONS

Offering unbeatable solutions for:
IBM AS/400 (iSeries)
IBM RS/6000 (pSeries)
Sun Microsystems
HP9000
Cisco Systems

Buy, Sell, Lease & Rent - New & Used

800-605-5446
Ph: 770-738-1101 • Fax: 770-738-1110
www.abacusllc.com • info@abacusllc.com

COMPUREX SYSTEMS CORPORATION
Your Leading Independent Reseller
Since 1987
IT Asset Disposition Solutions Provider

WE BUY HARDWARE
• HP
• Compaq
• DEC

• 35 Eastman St. • S. Easton, MA 02375 • www.compurex.com
• (800)426-5499 • (508)230-3700 • Fax: (508)238-8250

Millions of Items.... www.lincocomputer.com

Home | Inventory | Sales | Repair | Policies | Contact

Check Out Our Website -- www.lincocomputer.com
Call if you do not see what you are looking for!

Depot Repair for Monitors, Terminals, Printers PC's, and Laptops

281-893-8880 **Fax: 281-893-8897**

sales@lincocomputer.com VISA MasterCard PayPal

Memory For PC & MAC



We Buy Memory **1-866-9MEMORY** (1-866-963-6679)
SMS MEMORY
We've Been in the Memory Business Since 1987
FAX: 239-354-1232 • jeffsms@aol.com
www.smsassembly.com

Immediate Need For:
256 & 512 MEG DDR 2700 & 3200

ITT Information Technology Trading

Ph: (877) 715-3686
Fx: (405) 715-3682
www.itechtrading.com

- *We Buy, Sell and Lease* IBM
- *AS/400 • RS/6000 • Servers*
- *System Upgrades*
- *Advanced 36 Systems*
- *Tape Subsystems*
- *Printers, Terminals, Modems*
- *21 Years Experience*

IBM®

We Also Buy All Other Brands of Computer Hardware!

KRONOS 480F TIMECLOCKS

With Ethernet, New Battery & Power Supply
Refurbished, Tested & Air Packed - 30 Day Warranty
Summer Sale: $225.00 Each
(Ask About Quantity Discounts)

Pegasus Computer Marketing, Inc.
Ph 972-564-3087 • Fax 972-564-5027
Toll Free 800-856-2111 • pegasus5@airmail.net

MEDIA MASTR COMPUTER PRODUCTS, INC.

(800) 220-1616
609-586-7576
Fax: 609-586-7581

COMPUTER TAPE WANTED!
NEW OR USED
3590E's • 9840's • 9940's • LTO's
Round Reel Tape • 9 Track • **3480** • 3490E •
DLT's: TK50's • TK70's • TK85's • TK88's
www.mmcpi.com
7A Marlen Drive Robbinsville, NJ 08691



BUY & SELL
HARD DRIVES
FLOPPY DRIVES • CDROMS • CONTROLLER CARDS
New/Used/Pulls • Notebook/Desktop/Servers
All interfaces and capacities
www.drivesolutions.com
818-718-6900 Ph, 818-718-6100 Fax
email: sales@drivesolutions.com or purchasing@drivesolutions.com

K.D.S. INC. 818-700-9510
Kieu's Direct Source, Inc.

We Do:
DATA RECOVERY
- Fast, Safe & Reliable!
- No Files - No Charge.
- Free Evaluation.
- Data Guarantee.

We Repair, Buy & Sell:
HARD DRIVES & TAPE DRIVES
- Drop / Blind Shipments.
- Corporation, School and Gov't PO's Welcome.
- Guarranty low prices

www.kdsdrives.com **email: lam@kdsdrives.com**
WE BUY EXCESS INVENTORY!!!

NEW • USED • PARTS • WHOLE UNITS • REPAIRS • *Since 1993*

MEMOREX/TELEX
DISPLAYS, CONTROLLERS, PRINTERS

OKI®
We offer **OKIDATA** *Parts, Whole Units and Repairs*

COAX or TWINAX		
DISPLAYS	CONTROLLERS	PRINTERS
1191, 1192 1472, 1481 1482, 1483 1488, 1489	274 1374 1174	287, 387 1187, 1234 1387, 1324 1330

www.L-Lsystems.com

L & L Systems
104 South 109th E. Place, Tulsa OK 74128
Ph: 918-234-1200
Fx: 918-234-1276
E-mail: sales@L-Lsystems.com

Pacific Trading & Recycling
Buyers of electronic Scrap
Mainframes, PC's, Central office Telephone equipment, Copper Scrap,Large and Small Transformers, Copper Wire, and Silicon Steel
Phone: 256-442-3555
Fax: 256-442-3670

servers DIRECT™
MORE PRODUCTS, BETTER SERVICE, GUARANTEED.

GO STRAIGHT TO THE SOURCE!

FOCUS ON WHAT MATTERS MOST

GET DUAL-CORE INTEL XEON PROCESSORS IN SERVERSDIRECT SYSTEMS AND CONCERNTRATE ON BUSINESS OPPORTUNITIES INSTEAD OF SERVER HEADACHES

SDR-3500T 3U 64-BIT XEON DATABASE SERVER



Designed to provide outstanding performance with dual-core Xeon® 5000/5100, ideal solution for storage and mission critical business application server

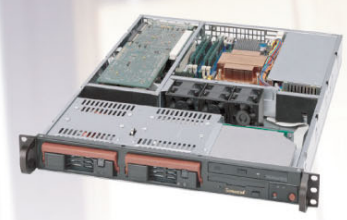
FEATURE HIGHLIGHTS:

Intel Xeon 5050 3.0GHZ Dual Core Processor (Dual Processor Option)
3U Chassis with 800W Redundant Power Supply
Intel® 5000P (Blackford) Chipset
Kingston 1024MB 667MHz DDR2 ECC FB-DIMM(2pcs x 512MB)
Seagate 400GB SATA-II 16MB Cache 7200RPM
16 x 1" Hot-swap SATA Drive Bays
ATI ES1000 Graphics with 16MB video memory
Intel® (ESB2/GIlgal) 82563EB Dual-port Gigabit Ethernet Controller
RAID 0, 1, 5, 10 Support

STARTING PRICE
$2,499

1U ENTRY LEVEL SERVER

1U Pentium® D servers support the latest dual-core architecture that delivers unmatched multi-tasking capabilities in an uni-processor environment



1U Rackmount Chassis with 300W Power Supply
Intel® Pentium® D 930 3.0GHZ Dual Core 800FSB
Intel® E7230 (Mukilteo) Chipset
Kingston 1024MB 667MHz DDR2 ECC (2pcs x 512MB)
Seagate 250GB SATA-II 7200RPM hard drive
2 x 1" Hot-swap SATA Drive Bays
ATI RageXL graphics, 8MB
2x Intel® 82573V (Tekoa) PCI-e Gigabit LAN Ports
RAID 0, 1

$999 **SKU# SDR-1110T**

COST EFFECTIVE 2U SERVER

Businesses with 50 or more employees seeking maximum performance, storage room, expandability and uptime



Intel Xeon 5050 3.0GHZ Dual Core Processor (Dual Processor Option)
2U Chassis with 600W Power Supply
Intel® 5000V (Blackford VS) Chipset
Kingston 1024MB 667MHz DDR2 ECC FB-DIMM (2pcs x 512MB)
Seagate 400GB SATA-II 16MB Cache 7200RPM
6 x 1" Hot-swap SATA-II Drive Bays
ATI ES1000 Graphics with 16MB video memory
Intel® (ESB2/Gilgal) 82563EB Dual-port Gigabit Ethernet Controller
RAID 0, 1, 5, 10 support

$1,599 **SKU# SDR-2501T**

4U TOWER/RACKMOUNT 64-BIT XEON ENTERPRISE SERVER

Powered by the latest dual-core Xeon 5000/5100® sequence processors, versatility in either a tower or rackmount 4U form factor and support enterprise-class



Intel Xeon 5050 3.0GHZ Dual Core Processor (Dual Processor Option)
4U Rackmountable / Tower
Intel® 5000X (Greencreek) Chipset
Kingston 1024MB 667MHz DDR2 ECC FB-DIMM (2pcs x 512MB)
8pcs x Seagate 400GB SATA-II 16MB Cache 7200RPM
3Ware 9550SX-8port RAID Controller Card
GeForce 6200 TC 128MB OB 256M support DDRTV-out PCI-E
Intel® (ESB2/Gilgal) 82563 Dual-port Gigabit Ethernet Controller

$3,999 **SKU# SDP-7045A-TB**

SDR-5500T 5U ADVANCED STORAGE SERVER

Powered by the latest dual-core Xeon 5000/5100® sequence processors, the absolute best storage capacity available in a 5U format



Intel Xeon 5050 3.0GHZ Dual Core Processor (Dual Processor Option)
5U Chassis with 24 hot-swap bays & 950W redundant power supply
Intel® 5000P (Blackford) Chipset
Kingston 1024MB 667MHz DDR2 ECC FB-DIMM (2pcs x 512MB)
12pcs x Western Digital 400GB SATA RAID Drive
1pc x 3Ware 9550SX-12 port RAID Controller Card
ATI ES1000 Graphics with 16MB video memory
Intel® (ESB2/Gilgal) 82563EB Dual-port Gigabit Ethernet Controller
RAID 0, 1, 5, 10 support

$6,799 **SKU# SDR-5500T**

SERVERS DIRECT CAN HELP YOU CONFIGURE YOUR NEXT HIGH PERFORMANCE SERVER SYSTEM - CALL US TODAY!

Our flexible on-line products configurator allows you to source a custom solution, or call and our product experts are standing by to help you assemble systems that require a little extra. Servers Direct - your direct source for scalable, cost effective server solutions.

1.877.727.7887 | www.serversdirect.com

intel Xeon inside™

Intel, Intel logo, Intel Inside, Intel Inside logo, Intel Centrino, Intel Centrino logo, Celeron, Intel Xeon, Intel SpeedStep, Itanium, Pentium, and Pentium III Xeon are trademarks of Intel Corporation or it's subsidiaries in the United States and other countries.